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ROYAL NAVAL BIRD WATCHING SOCIETY

(Affiliated to the British Trust for Ornithology)

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1961

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WHITE TERN—Tropical Oceans
(Photograph supplied by an R.N.P.W.S. Member)

FOREWORD

It has been my privilege to be elected your President in succession to the late Admiral of the Fleet Sir Charles Lambe whose death so soon after becoming President was such a blow to the Society.

It is a great pleasure to be afforded this opportunity to introduce myself as one who has been deeply, if inexpertly, interested in bird life since my earliest days, and who appreciates that the strength of R.N.B.W.S. today is due to the support and inspiration which all its members continue to give to the Society. I am very glad to see that our membership continues to grow, and it has been an eye opener to me to see the increased enthusiasm and care given to the preparation of sea reports since I first joined the R.N.B.W.S. in its early days.

It has been a pleasure to give such experience as we may have gained to those concerned with the formation of the Army Birdwatching Society. We wish it every success and look forward to a close and happy liaison in the future.

We hope, too, that we may be of some service to the National Institute of Oceanography in connection with the International Indian Ocean Expedition in placing the information of our bird reports and ocean plot at its disposal.

The interest shown by members in reporting land birds at sea is reflected in this section of the report. I am particularly grateful therefore to Mr. R. E. Moreau for his valuable advice and comments on these returns, and to Dr. David Lack for allowing a final home for them to be made in the Edward Grey Institute of Field Ornithology.

Finally I would like to touch on one aspect of the work behind the scenes which we hope will shortly come to fruition. Largely through the inspiration and observations of Captain P. P. O. Harrison, who has prepared the text, the Society is helping to produce in his name a small handbook entitled "Sea Birds of the South Pacific—A Handbook for Passengers and Seafarers." It will be of pocket size and illustrated with photographs of sea birds, mainly from the R.N.B.W.S. photographic library, and plates executed by Commander A. M. Hughes. Further details are given within the Annual Report, and I am sure that members will give this venture all the support it deserves.

I send my best wishes to all members in the coming year.

Nigel Henderson.

Admiralty,
London.

November, 1961

EDITORIAL

Since the publication of *Sea Swallow*, 1960, two alterations have arisen in the constitution of the Executive Council. Vice-Admiral N. S. Henderson, C.B., O.B.E., has kindly accepted election as President, and Commandant Jean Davies, O.B.E., Hon. A.D.C., Director, W.R.N.S., has been elected a Vice-President in succession to Dame Elizabeth Hoyer-Millar. In addition, corporate membership has been extended to the School of Navigation, Warsash.

Nineteen new members, including Captain D. Stam of the Netherlands Merchant Navy, and Lt. Commander R. Stackpole, U.S.N.R. (Retd.) have joined.

Lector Hans Hvass, Grondalsvej 53, Copenhagen, Denmark, has accepted our invitation to act as the Society's local representative, and has been elected an Honorary Member. We hope that members visiting Copenhagen will take advantage of his kind offer to assist them.

Our total membership now stands at two hundred and fifty-four We extend a hearty welcome to our new members.

THE COURSE OF THE YEAR

It has been a busy year for those who give their time voluntarily in the interests of R.N.B.W.S.

Engineer Lieutenant Wain at the sea bird plot has received since 1961, fifty-five separate sea passage reports, some running into over a hundred separate serials. These have to be analysed, reports allocated to seasonal colours and marked up. Dr. W. R. P. Bourne has the even more exacting task of studying and commenting, besides making time to give much valuable advice in a matter referred to later.

Our thanks are also due to P. A. Rayfield for undertaking the distribution of Christmas Cards.

The most outstanding single advance has been in the upsurge of interest shown by members in reporting land birds observed at sea. Thirty sea passage reports on land birds have been received this year up to date, covering a great many separate observations. The increase is reflected in the section devoted to this sphere.

The intrinsic value of these land bird reports and indeed the identification of some strange birds reported certainly poses a problem. As it has fallen to my lot to prepare the analysis and to answer queries which arise I have always realized that a good deal is lacking. It has been a great encouragement to me that Mr. R. E. Moreau has offered to assist, so far as his time will permit, in studying reports. This year Mr. Moreau has given time very generously to study and comment before the reports have been lodged at the Edward Grey Institute of Field Ornithology in Oxford.

REPORTING FORMS

Quite a number of returns of the new form for recording measurements and other details of birds examined in the hand have been sent in. These provide a really valuable record for future reference.

I do not know how many times Jouanin's Petrel (*Bulweria Fallax*) has been measured and examined in the hand, but amongst other forms we have two separate returns of this bird from the Arabian Sea.

The standard sea report sheet for sea birds has been revised and the 1961 edition will be available for members shortly.

SPECIMENS

There is sad evidence of land and sea birds picked up dead onboard. It is perhaps asking rather a lot of members to turn them into taxidermists, nor indeed is there any merit in preserving skins of entirely well-known birds. The skin of a Herring Gull or Turtle Dove is of little or no value, but where some oceanic shearwater or petrel or some unusual and unidentified land bird falls a victim onboard, a member can do a useful service in forwarding the specimen.

Advice on preserving whole specimens either without skinning and on skinning completely varies, but it has been thought worth including some notes in the current report.

Second Officer J. H. Agnew forwarded complete skins of a Brown-winged Tern, a Northern Red-necked Phalarope and a Grey Phalarope, and two of these have been accepted as specimens by the British Museum (Natural History).

RINGING BIRDS

I am glad to see from sea report sheets that several members are ringing birds captured on board. R.N.B.W.S. does not promote any particular programmes for ringing birds as this would not be practicable.

Nevertheless birds do come onboard ships in the most unexpected areas and the recovery of a bird ringed at sea may prove to be of great interest. Members interested in this work should write for details direct to Miss H. E. Bargman, National Institute of Oceanography "Discovery" Collections, c/o Bird Room, British Museum (Natural History), Cromwell Road, London, S.W.7.

CONTACTS WITH OTHER SOCIETIES

Members will have noted in bulletins that R.N.B.W.S. has been approached by the sponsors of the Army Birdwatching Society and by the Biological Planning Committee of the International Indian Ocean Expedition 1962-3. Our Society is glad of this opportunity of putting its services and information at the disposal of these two enterprises.

EXTRACTS FROM METEOROLOGICAL LOGS

Once again the Society is most grateful to the Meteoroligical Office, MO1, and in particular to Mr. L. B. Philpott, for forwarding bird notes occurring in the met. logs: from Merchant Ships. Where these birds have evidently been identified correctly no action has been taken to communicate with the Master of the ship concerned. In view of the number of unidentified reports a separate summary is being prepared for the information of the Meteorological Office.

REPORTS FROM HOME

Only a few sighting reports of less common birds have been received from members at home. The Editor acknowledges these with thanks, but has decided not to list these in the current report.

FORTHCOMING PUBLICATION. "SEA BIRDS OF THE SOUTH PACIFIC OCEAN—A HANDBOOK FOR PASSENGERS AND SEAFARERS"—P. P. O. HARRISON

Captain Harrison, as many members must realize from previous notes on sea reports, has a unique experience on the incidence of sea

birds in that broad belt of the South Pacific between Panama and New Zealand. Captain Harrison has analysed the results of over 3,000 observations from his day to day bird log, augmented by information from other observers. As a result he has prepared a comprehensive account of the distribution of the sea birds over the South Pacific Passenger Ship route. He has set out to give general guidance to the reader on the broad principles of distribution, recognition, characteristics, and flight patterns. He has then divided the route into four sections giving a detailed description of the sea birds to be seen in each section during Spring, Summer, Autumn and Winter.

From this beginning the text has been supplemented by some thirty-five excellent photographic illustrations, mostly of the sea birds in flight and five pages of plates showing recognition features of the principal shearwaters and petrels. Summaries in tabular form for quick reference have also been included, one covering the shearwaters and petrels outlining their salient features and flight patterns, another in the form of a distribution table entitled "Look out for the sea birds."

This little book does not claim nor indeed set out to be a complete guide to all the sea birds of the entire South Pacific. Those species normally confined to the deep south and sub antarctic zones, and those local to the coastal regions of the West Coast of South America will not all be found in this book, nor is the trans-Pacific birdwatcher likely to encounter them. Many of the sea birds described, however, will also be seen by travellers in similar latitudes in the South Atlantic and Indian Oceans.

R.N.B.W.S. has been working in close co-operation with Captain Harrison in sponsoring this venture and a great deal of thanks is due to Dr. W. R. P. Bourne for his advice on the manuscript.

It is hoped that the book will be available in a handy pocket size before the next edition of *Sea Swallow*, and at a price which will prove within the seafarers' means.

G. S. TUCK,
Editor.

NOTES ON OBSERVATIONS OF SEA-BIRDS RECEIVED DURING 1960

By W. R. P. Bourne assisted by M. C. Radford

INTRODUCTION

This has been another eminently satisfactory year. Thus this survey covers notes from over fifty voyages by some twenty-three observers, another record. The sea reports are continuing to increase in volume, detail, and accuracy, while the bird-in-hand forms are proving an outstanding success, providing trustworthy identifications to act as a check on sight records. Two members have also sent in birds which died, which have been gratefully accepted by the British Museum; one of them had only been collected four or five times before, and its classification had long been dubious, so that the specimen has proved very useful indeed to confirm its identity. It is clear that the R.N.B.W.S. is gradually building up a body of experienced and trustworthy observers capable of collecting information concerning seabirds throughout the world on a scale unprecedented in the history of ornithology. I think congratulations are due to all concerned.

The situation is not quite so happy on the office side, and it seems time to lay off criticising observers at sea and introduce some reforms here next. With the assistance of Dr. Mary Radford I have attempted to collate the observations for each species in the 1960 reports, and the attempt has made it very clear to us that the present method of recording observations is unsatisfactory on at least two counts, producing an unmanageable mass of routine observations of common species but too little information about rare ones. Mr. Wain has had the same trouble when trying to plot the observations on maps for the Society, so it seems clear that it is time that the method of reporting the observations was revised. We have therefore designed a new type of sea report form, plain on one side for a summary of all the notes on each species made during a voyage, but with a table on the other so that the conditions and the number of birds seen each day can be summarised in the easiest possible way. This form has now been sent to our most active contributor, Captain Harrison, for his opinion and possible field trials. With luck it should make the notes both easier to record on the one hand, and easier to analyse on the other. Until the new form has been accepted the present forms will naturally continue to be used.

I have seen reports by fifteen observers since my last note went to the press, while some additional ones are still with Mr. Wain. These include five admirable first reports by J. H. Agnew, Stephen Chapman, D. F. Fieldhouse, T. S. F. Fripp, and P. H. King, all showing evidence of care and accuracy. Mr. Agnew has sent notes from nine voyages across the Pacific, four bird-in-hand forms, and four skins of dead birds, all of the greatest value; the British Museum have accepted the skins with gratitude. Mr. Chapman has sent many detailed notes for the North Atlantic which go far to show how much useful new information can still be produced by careful attention to a supposedly well-known area; Captain Colquhoun and Lt. Crone have sent a useful selection of notes from the North Atlantic, Mediterranean and Indian Ocean, and Lt. Fieldhouse detailed notes on observations around Iceland and in the North Sea. Mr. Fripp has followed Mr. Brinkley in supplying detailed

notes from nearly the whole length of the east coast of the Americas, and Captain Harrison has received a new and larger command and is now making regular notes on the route between Britain and the Levant; I trust that having shown us what he can do as a free-lance visiting distant parts of the world, he is now going to pioneer the initially tedious but ultimately equally rewarding task of compiling systematic notes on the seasonal changes of distribution of birds in the same area. Captain Jarvis and Captain Kennedy have produced a useful list of outstanding records in the North and South Atlantic and Caribbean, Mr. King several very useful records from the Indian Ocean, and Mr. May others from the Mediterranean. Captain Mitchell has continued to produce an invaluable series of observations from the least-known parts of the central Pacific and Indian Oceans, while finally the distinguished Chairman of the British Ornithologists' Club, Captain Charles Pitman, has presented us with a report containing a series of observations made during a round trip from Britain to South Africa. I should like to congratulate everyone on their performance.

I am postponing comments on individual records in the reports to the systematic list of observations on individual species at the end of this note, but it may be useful however if I make a few general points first. Members are showing the most gratifying type of response to my rudeness in the past by continuing to produce better descriptions of the birds they report, and I trust they will keep this up, though we are recommending that on the new report forms they should only describe each species once, with any comments, on the back of the form. Captain Mitchell makes some very cogent comments on my strictures regarding the value of undocumented records, as follows: "You will probably say that my records are too vague. After reading Bourne's interesting survey I came to the conclusion that positive records without proof of identification are as bad as unsupported circumstantial evidence in the courts. So, seabirds being as shy as they are, it would seem entirely wrong and misleading to make positive statements for the record."

This seems very much to the point. If observations are to have any permanent value they must be based on the sort of evidence which will stand up to cross-examination in a court of law. In point of fact, bearing in mind where and under what conditions they were made, I think Captain Mitchell's observations are usually remarkably good, and an increasing number of other people are beginning to come up to the same standard now, though I have seen one or two comments about "the comfortable old pre-Bourne days." However, I have a feeling that a good many members are now beginning to get the idea, and develop some fairly rigid standards of what does and what does not constitute a positive observation for themselves. Our aim must be to set such standards of competence and reliability that it will become known that an experienced member of the Royal Naval Bird Watching Society can be trusted to identify a seabird as soon as he sees it, and can substantiate each record in such detail afterwards that anyone can always rely on anything he says, anywhere!

This possibly somewhat exacting requirement means that members must gradually get to know their birds, and especially the ways in which superficially similar species differ, so well that they can spot the differences between species as soon as they see them, and describe them accurately afterwards. We are aware that it is very difficult for beginners to gain this essential background experience at the moment owing to the absence of suitable textbooks other than "Alexander,"

which deserves great respect as the first of all field-guides of ocean birds, but lacks the assistance afforded by good illustrations which is such a helpful feature in more modern reference books on land birds.

In the hope of correcting some common mistakes I am going to devote much of the systematic list to commenting on difficult species and some common errors this year, only quoting on a few of the more outstanding records this time. As our reorganisation of the method of reporting observations takes effect and it becomes easier to analyse the records I hope that it will be possible to quote more and more important new observations and produce detailed surveys of the distribution of an increasing number of common species each year, while it will become necessary to devote less and less space to discussing common mistakes.

I do not wish, however, to give the impression that I think our only object should be to collect records of rare or little-known species. This is likely to be a self-limiting task in any case, since we should come to know them all equally well in the course of time. I am sure that the routine collection of records of the distribution of common species and notes on their habits is also going to become increasingly important in the long run, as we begin to accumulate larger numbers of observations. When that time arrives it should be possible for us to take large numbers of records of each species from the files in the British Museum and plot them on maps month by month in order to discover where the birds breed, and moult, and feed, and how they move about during the year. Mr. Wain is already doing this in a general way for all species for the society, and I hope we shall see some general maps based on his work published first. Eventually, when we have enough records, it should become possible to produce really detailed maps of the distribution of all seabirds, everywhere.

SEA REPORTS

Sea Reports were received during 1960 from the following people, hereafter referred to by their initials:—

2/Off. J. H. Agnew. M.S. Gloucester. Nine Pacific crossings between Australia and Vancouver, July 1959 - August 1960. 11 pages.

Captain E. F. Aikman. S.S. Beaverford. Isolated notes from the North Atlantic, February, March, September, November 1960. 4 pages.

Lt. N. Bailey. H.M.S. Bulwark. Aden to Singapore, May-June 1960. 2 pages.

5/E. J. O. Brinkley. S.S. Hinea. Europe, eastern North America and Venezuela, January - June 1960. Red Sea, Persian Gulf, Singapore, Japan and back, June - October 1960. 21 pages.

Mr. Stephen Chapman. S.S. Birmingham City. U.K. to North America and back, June - August 1960. 12 pages.

Captain A. J. F. Colquhoun. M.V. Eucadia. Bombay - U.K., January - February 1960. 7 pages.

Lt. W. P. Crone. H.M.S. Dalrymple. U.K. - Mediterranean - Persian Gulf, September - October 1960. 5 pages.

Captain A. B. Davies. S.S. Mandasor. Mediterranean - Calcutta - U.K. July - October 1960. 5 pages.

Ch. Off. W. L. N. Fisken. S.S. British Trader. U.K. - Persian Gulf -

Antwerp via the Cape; Persian Gulf - West Australia, March - July 1960. 18 pages.

2/Off. T. F. S. Fripp, s.s. Halia. Venezuela - New York and back, Buenos Aires, Curacoa, June - September 1960. 18 pages.

Captain P. P. O. Harrison, M.V. Cumberland. U.K. - Suez - New Zealand - Panama - U.K., January - May 1960. 78 pages. s.s. Derby. U.K. - Persian Gulf and back, August 1960. 25 pages.

Apprentice M. E. Jones, s.s. Malakand. U.K. - Aden, March - April 1960, and return to U.K., August 1960. 3 pages.

Cdr. M. W. B. Kerr, H.M.S. Armada. Iceland Patrol, January - February 1960. 1 page.

Lt. Cdr. E. G. May. R.F.A. Tide Austral. Mediterranean February - June 1960. 3 pages.

Captain J. B. Mitchell, M.V. Yewbank. Peru - Japan, February -March 1960. Sumatra - Mauritius - Dar-es-Salaam, May - June 1960. Singapore - Mauritius - Madagascar - Durban, November 1960. 11 pages.

L./Sea. D. M. Neale and L.R.O. G. E. Miles, H.M.S. Loch Lomond. U.K. - Gulf of Aden, Arabian Sea and Persian Gulf on patrol, February - June 1960. 27 pages.

Captain C. R. S. Pitman, R.M.S. Edinburgh Castle. U.K. - Cape Town and back, June - July 1960. 16 pages.

Lt. D. C. Springall and the Officers of H.M.S. Protector. Atlantic and Antarctic, November 1959 - March 1960. 11 pages.

A./S. A. Semple, s.s. Rangitiki. U.K. - New Zealand and back via Panama, November 1959 - March 1960. s.s. Strathaird. U.K. to Australia and back via Suez, June - August 1960. 14 pages.

Cdr. R. Walgate, s.s. Empress of Britain. Montreal, North Atlantic, Caribbean, October 1959, January - February and October 1960. 3 pages.

Captain J. V. Wilkinson, H.M.S. Belfast. Indian Ocean and South Australia, March 1960. 6 pages.

These reports include a large mass of isolated observations of common species in their normal range, and a much smaller number of records of exceptional numbers of birds, birds in new places, or observations of appearance and habits. We have insufficient space to quote them all here; Dr. Radford has helped me extract some of the exceptional ones. I am only going to quote some this year, and propose to devote the rest of the report to a survey of some common difficulties, misconceptions, and errors of identification revealed by a study of past records, and a summary of some recent information not yet quoted in the textbooks and a few points which still require investigation. This is essentially a trial report, and I hope to see it steadily modified and improved with the passage of time; any comments or suggestions will be very welcome.

The different species observed are discussed below in the order found in the check-list at the back of the 2nd (1955) edition of W. B. Alexander's "Birds of the Ocean"; it would help if members could use these names and this order of species when compiling notes in future, or commenting on their observations on the back of the new Sea Report Forms at present under trial. I should like to point out that while all observations of seabirds are useful for plotting distributions, the inform-

ation which extends past knowledge, still best summarised in Alexander, is most important, and should be documented with particular care. The birds should be described briefly, with particular emphasis on how they were distinguished from similar species with which they might be confused, and what they were doing. We have discussed records received rather than records made during the year 1960 in this report, because many voyages run from one year to another and we do not want to break the notes up, and because many of them take so long to come in after the end of the year.

In our 1962 *Sea Swallow* we shall be discussing the records received during 1961.

NOTES ON SPECIES

Penguins *(Spheniscidae)*

Most species keep to the south of the normal shipping routes. There were no particularly remarkable records for 1960. It would be useful if members could try to get more records of the distribution and behaviour of these birds out at sea away from the breeding stations.

Albatrosses *(Diomedeidae)*

These occur commonly along the southern ocean and North Pacific shipping routes, and there are always many records, though we had none from the North Atlantic last year, as we have had in the past. Notes on the limits of the range of different species, the numbers in different areas, the proportions of adults to juveniles and the presence of birds in moult are always useful. Among the more noteworthy records last year are the following:—

Wandering Albatross *Diomedea exulans*. Some most northerly records are at 20°S. 168°E. on 20 Oct. 1959 (J.H.A.), 28°S. 44°W. on 20 Aug. 1960 (T.F.S.F.), and 16½°S. 3½°E. on 11 July 1960 (C.R.S.P.). H.M.S. Protector saw one to twelve regularly from Nov. 1959 to Jan. 1960 between 35°-61°S. and 44½°-69°W. (D.C.S.).

Royal Albatross *(Diomedea epomorpha)*. (No important records this year, but it breeds commonly in the New Zealand area and ringing returns now show that it disperses across the South Pacific to the American coast, so members should see it.)

Waved Albatross *(Diomedea irrorata)*. One at 2°14'S. 89°W. on 27 April (P.P.O.H.).

Black-footed Albatross *(Diomedea nigripes)*. Some most southerly records, 15½°N. 163½°W. on 6 Dec. 1959, 15°N. 164°W. on 19 March 1960, 26°N. 152°W. on 12 April, 27½°N. 148°W. on 30 June, and 26½°N. 153½°W. on 27 July, with 85 at 26°N. 155°W. on 20 Jan. (J.H.A.).

Laysan Albatross *(Diomedea immutabilis)*. This species usually seems to stay further north than the last. Two or three were always present from 41°N. 137½°W. to 24½°N. 155°W. on 16-20 Jan., one was seen at 31¾°N. 129°W. on 26 March, and two at 26½°N. 151½°W. on 12 Apr. (J.H.A.), and one at 29°N. 146°E. on 22 March (J.B.M.).

Short-tailed Albatross *(Diomedea albatrus)*. (No records; but a handful still breed on Torishima in the Bonins, so it should be watched for in that area).

Black-browed Albatross *(Diomedea melanophris)*. Most northerly record, 11°S. 1°E. on 21 June (C.R.S.P.), and one to three seen regularly by H.M.S. Protector in Nov.-Jan., with 26 at 61°S. 44½°W. on 25 Feb. (D.C.S.).

Shy Albatross *(Diomedea cauta)*. This is characteristically an offshore species only seen far out at sea on migration. Although it only breeds around New Zealand and Tasmania, a large non-breeding population occurs off S.W. Africa, where it was seen at 32°S. 16½°E. on 20 March by W.L.N.F.

Yellow-nosed Albatross. Most northerly records are at 32°S. 17°E.

near Cape Agulhas on 20 March and 31°S. 111°E. on 5 July (W.L.N.F.), and at 29°S. 13 - 14°E. on 22 June and 9 July (C.R.S.P.).

Grey-headed Albatross *(Diomedea chrysostoma)*. Essentially a more southerly representative of the last species; one to four were seen by H.M.S. Protector in Dec. - Jan. and 19 on 4 Feb. between 54° - 65°S. and 36° - 69°W. (D.C.S.).

Sooty Albatross *(Phoebetria fusca)*. Seems to be recorded less often than most other species frequenting the same area; one at 29°S. 15°E. on 22 June (C.R.S.P.). H.M.S. Protector reports some much further south, but it seems possible that there was confusion with the next species.

Light-mantled Sooty Albatross *(Phoebetria palpebrata)*. Essentially a southern representative of the last species. One or two regularly seen by H.M.S. Protector from 19 Dec. to 28 Feb., with eight on 25 Feb. between 54° - 61°S. and 37° - 62°W. (D.C.S.).

Fulmars, Prions, Petrels, Shearwaters *(Procellariidae)*

Giant Petrel *(Macronectes giganteus)*. One or more seen regularly by H.M.S. Protector during Nov. - Feb. between 35° - 65°S. and 51° - 61°W., with 26 on 25 Feb. The white phase was first seen at 62°S. 58°W. on 3 Jan. (D.C.S.).

Pintado Petrel *(Daption capensis)*. Up to 20 between 24½°S. 41°W. and 35°S. 55°W. on 19 - 22 Aug. (T.F.S.F.), and a number at 23°S. 11°E. on 21 June (C.R.S.P.). H.M.S. Protector saw small numbers during Dec. - Feb. between 58° - 62°S. and 33° - 59° W. (D.C.S.).

Fulmar *(Fulmarus glacialis)*. No outstanding records. It would be useful if we could collect more records of the distribution of the colour-phases and feeding habits of this bird.

Silver-grey Petrel *(Fulmarus glacialoides)*. H.M.S. Protector reported two on 2 Jan., at least 25 on 19 Jan. and many on 23 Feb. between 60° - 65°S. and 49° - 69° W. (D.C.S.) It is by no means clear quite how far north this bird comes in winter.

Blue Petrel *(Halobaena coerulea)*. H.M.S. Protector saw two on 2 Jan. at 59°S. 59°W. and at least ten on 17 Jan. at 65°S. 69°W. (D.C.S.). It would be useful to have more notes on the behaviour of this bird, and the way in which it resembles and differs from the prions. Records will not be accepted in future if the white tail-tip was not observed.

Prions *(Pachyptila sp)*. Many hundreds at 42°S. 173½°W. on 13 April (P.P.O.H.), while H.M.S. Protector saw at least ten on 30 Nov. at 51°S. 57°W., and parties of up to 25 from 31 Dec. to Feb. between 51° - 58°S. and 33° - 61°W. (D.C.S.). These birds seem to be rather frequently identified as other species such as the Blue or Cooks Petrels or Grey-backed Storm-petrel by people new to the south; among other points to be looked for are the blue bills and wedge-shaped tails with distinct dark tips, and their marked tendency to occur in flocks.

Antarctic Petrel *(Thalassoica antarctica)*. H.M.S. Protector saw one on 28 Nov. at 39½°S. 57°W., over 50 on 2 Jan. at 60°S. 57°W., and over 25 on 19 Jan. at 63°S. 69°W. (D.C.S.).

Brown Petrel *(Adamastor cinereus)*. (No outstanding records. It should be pointed out that this bird comes far north along cool currents at times; there is a bird in the Royal Scottish Museum from the vicinity of Ascension, and another in the British Museum taken off New

Caledonia, as well as the old records from Peru. We should receive more reports of it; the black and pale green bill distinguishes it from similar species).

White-chinned Petrel *(Procellaria aequinoctialis)*. Most northerly record, 23°S. 11°E. on 21 June (C.R.S.P.); H.M.S. Protector saw up to six during Nov.-Feb. between 48°-58°S. and 33°-57° W. (D.C.S.). A special watch should be kept for the form with white spectacle face markings breeding in the Tristan group.

White-faced Shearwater *Puffinus leucomelas*. Large numbers breed in the Japan-Pescadores area and winter north of the East Indies, straying to northern Australia and Ceylon, but our most notable record is about 40 at 22°N. 124°E. on 16 Aug. (J.O.B.).

Mediterranean Shearwater *(Puffinus kuhlii)*. Numerous records from the summer range in the temperate North Atlantic and Mediterranean from 12 Feb., when D.M.N. and G.E.M. saw two off Zemba Island, Algeria, till 17 Oct., when J.O.B. saw it at 39°N. 9½°W. off the coast of Portugal. Seven hundred off the coast of North Africa at 36°-42°N. 13°E. on 30 March may have belonged to one of the local colonies or may have been migrants on their way to the eastern Mediterranean (M.E.J.). C.R.S.P. saw some 16 off Bathurst on 15 June, and again passing Cape Verde on 19 July, and W.L.N.F. saw over a dozen in the winter range off Port Elizabeth, South Africa, on 22 March. We now have a number of records from this region.

Pale-footed Shearwater *(Puffinus carneipes)*. There are several records from the vicinity of the breeding stations off northern New Zealand and S.W. Australia. In the vicinity of the Gulf of Oman D.M.N. and G.E.M. saw the first migrant on 25 May, more than sixty next day, more than a hundred the day after, and then varying numbers until Oct.-Nov. The late birds were presumably immature non-breeders.

Great Shearwater *(Puffinus gravis)*. In the south, H.M.S. Protector reports them numerous at 40½°S. 55½°W. on 28 Nov. 1959, and large numbers at 52½°S. 53°W. on 21 Dec. (D.C.S.). This is a long way from the breeding grounds in the Tristan area and they seem likely to have been immature non-breeders. In the north J.O.B. saw the first spring migrants coming up the west side of the Atlantic at 19°N. 63°W. and 20°N. 67½°W. on 15 and 19 April, and P.P.O.H. found them common between 19°N. 63°W. and 39½°N. 37°W. during 8-14 May. There are a number of records from further north during the summer, when the birds move north to the Grand Banks and Greenland to moult, while on return passage M.E.J. saw hundreds off Cape Finistere on 12 Aug. and T.F.S.F. saw parties of up to 50 between 34°S. 52½°W. and 12°S. 34½°W. during 21 Aug.-2 Sept. There have been few or no previous records of the last stage of the journey south; it sounds as though they must go south-west from the coast of Iberia, where they are quite common in autumn, move down the coast of South America, and approach Tristan from the west.

Wedge-tailed Shearwater *(Puffinus pacificu)*. In addition to the photograph of a bird which came aboard at 9½°N. 66½°E. on 27 May taken by N.B. and reproduced in *Sea Swallow* last year, W.L.N.F. has sent in the description of another bird which came on board on the equator at 86½°E. on 26 July on a bird-in-hand form, confirming the presence of this species in the central and northern Indian Ocean. In the same region J.B.M. saw either this species or the Pale-footed Shearwater on the

equator at 91½°E. on 20 May, and A.B.D. saw flocks of a hundred or more of one of these two species at 12½°N. 61°E. on 30 July. D.M.N. and G.E.M. saw thirty definite Wedge-tails off the coast of Somaliland at 11°48'N. 49°E. on 27 Feb., and large numbers off the Kuria Muria and Masira Is. on 2 - 3 March, among other records; since they also saw Jouanin's Petrel and later Flesh-footed Shearwaters in the same area it seems likely that they identified them correctly, and increasing probability that they nest somewhere in this region. J.O.B. also saw a number of large dark shearwaters with a swooping flight in the area between the East Indies and Japan, including at least twenty at 20°N. 123°E. on 26 July, over fifty at 13°N. 114½°E. on 28 July, and about fifteen at 22°N. 124°E. on 16 Aug., which may be this species, though it must be remembered that Bulwer's Petrel among other similar species also frequents this area. Some other potential records by J.B.M. are mentioned under the next species.

Christmas Shearwater *(Puffinus nativitatis)*. Possible birds were reported between 2°N. 133°W. and 12°N. 176½°W. during 5 - 11 March by J.B.M. The first was described as all dark, with long narrow wings and a sizeable tail, flying aimlessly at about thirty feet, which might apply to the Wedge-tailed Shearwater, also found in this region. A.S. saw two more birds at 15½°S. 113½°W. on 16 Feb. which were uniformly dark brown with a "smallish" tail. This sounds much better; the appearance of skins suggests that in the field this bird must look very like a brown Short-tailed Shearwater, uniformly dark with long slender wings and a short tail, with a flutter-and-glide type of flight low over the water, swimming freely.

Manx Shearwater *(Puffinus puffinus)*. The Black-vented and Townsend's Shearwaters *(P. opisthomelas)* and *(P. auricularis)* of Alexander, and possibly also the Fluttering Shearwater *(P. gavia)* are probably best regarded as forms of this species. We have a number of records from the breeding area off the N.W. coast of Europe in summer, west to 50½°N. 34°W., where there were three on 24 June, and 44°N. 49°W., where there were four on 24 July (S.C.). D.M.N. and G.E.M. saw many birds ten miles east of Gibraltar on 10 Feb., and 150 west of Cape Bon, Tunisia, two days later. T.F.S.F. saw two black-and-white shearwaters which might have been migrants of this species or possibly Audubon's Shearwaters at 18°S. 15°W. on 27 July and 7½°N. 54°W. on 7 Sept., and P.P.O.H. saw Fluttering Shearwaters off the breeding area at 38°S. 178½°E. on 16 March.

Dusky or Little Shearwater *(Puffinus assimilis)*, Audubon's Shearwater *(P.lherminieri)*, Persian Shearwater *(P. persicus)*, and Heinroth's Shearwater *(P.heinrothi)*. These are probably all best regarded as forms of one species which gets browner and more heavily marked in the warmer parts of its range. We have a very extensive series of records of one member of the group, the Persian Shearwater, obtained by D.M.N. and G.E.M. while patrolling in the approaches to the Red Sea and Persian Gulf early in the year. They saw the first south of the Zubair Is. in the Red Sea on 24 Feb., and found congregations of over a thousand feeding with other species on shoals of fish near Elayu on the north coast of Somaliland in the following week, and in the Straits of Hormuz and near Dubai on the north coast of Oman in March and April, with smaller numbers round Jez Tunb and Jaz Farur Is. in the eastern Gulf on 5 March. The birds gathered in flocks to feed far offshore during the day, and were seen to scatter and move inshore at dusk

and out to sea again at dawn, which points strongly towards breeding either inland or on offshore islands somewhere in this region, though this could not be proved. Parts of a dead bird obtained in the Gulf at 26°N. 56°55'E. on 20 July were like those of Audubon's Shearwater, but it was slightly longer in the bill and darker under the wing, so this form can only be regarded as a rather poorly marked subspecies; measurements, exposed culmen 31 mm., wing 205 mm., tail 76 mm., tarsus 38 m.m. There are a few other records of small shearwaters of this group: In addition to possible birds seen by T.F.S.F. off Brazil mentioned under Manx Shearwater, C.R.S.P. saw one 114 miles south of Las Palmas and a couple off Bathurst on 13 and 15 June, and A.S. one off the Galapagos on 21 Feb. and another off West Australia at 22°S. 105°E. on 5 July.

Great-winged Petrel *(Pterodroma macroptera)*.There are odd records from the vicinity of recognised breeding sites. The all-dark birds of the Atlantic and Indian Ocean should be unmistakeable in that area with their short thick black bills, but could be confused with dark Trinidade Petrels, which are browner and lighter-built, and Réunion Petrels, which are similar but smaller. The paler-faced birds of New Zealand might be confused with several other species, but differ from the shearwaters and Black Petrel in having a short, thick, dark bill, and from Solander's, Murphy's and dark Kermadec Petrels by having uniformly dark wings, the latter three all showing varying amounts of white.

Réunion Petrel *(Pterodroma aterrima)*. As pointed out last year, this seems to be a small version of the last species. It is still only known from four specimens taken over a hundred years ago, probably on Réunion; since numbers of unidentified petrels are still reported to nest in the inland cliffs there, anyone who visits the island would be performing a very useful service by trying to find out what they are, and if possible obtaining specimens.

Black-capped Petrel *(Pterodroma hasitata)*. Within the last twenty years individuals of this species have been seen alive inland in Haiti, so anyone visiting Hispaniola or Dominica would perform a useful service by looking for it in the inland cliffs there. It is also likely to occur out in the Atlantic off the West Indies, where it is likely to be mistaken for the Great Shearwater, though it has a more soaring type of flight, a shorter, thicker bill, a wedge-shaped white rump, a white face, and no dark spot on the belly. The Cahow of Bermuda is probably best regarded as a race of this bird with a dark rump, the Jamaica petrel a uniformly dark form with a pale grey rump, which is likely to be mistaken for the Sooty Shearwater. A lot of ships cross the potential range of these birds; when are we going to get some records?

Schlegel's Petrel *(Pterodroma incerta)*. A number seen off the Cape on 30 March, and up to four seen by H.M.S. Protector between 35°-45°S. and 51°-56°W. in November, and again at 53°S. 47°W. on 17 Dec. (D.C.S.).

Magenta Petrel *(Pterodroma magentae)*. This highly distinct form is omitted from most of the textbooks. It is a large purplish-brown gad-fly petrel with a white chin, a dark breast-band, a white belly and dark underwing, measurements exposed culmen 37 mm., wing 306 mm., tail 127 mm., tarsus 42 mm., looking rather like a big brown Soft-plumaged Petrel. It is only known from a single specimen taken at 39½°S. 126°W. south of Pitcairn Island in July 1867. It may be the

same as the large gad-fly petrel which used to breed in the Chatham Islands but died out about fifty years ago, or it might breed on one of the almost unexplored islands in the South Pacific, such as Rapa or Juan Fernandes; in any case, members may care to look for it in that area. A bird rather like a Soft-plumaged Petrel seen at 40½°S. 173°W. on 6 Feb. by A.S. sounds most like this species. Any peculiar petrels which come on board in this area ought to be examined very carefully indeed, and preserved if possible.

Tahiti Petrel *(Pterodroma rostrata)*. J.H.A. reports an unidentified petrel "like Alexander's description of the Tahiti Petrel, but the under wing coverts pale grey" in the Kermadek area at 29½°S. 178½°W. on 15 June. This defeats me; most of the difficult Pacific gad-fly petrels nest somewhere in that area, but this does not fit any of them exactly, though it seems most likely to be some phase of the Trinidade (=Herald) Petrel. The Tahiti Petrel, and Beck's Petrel *(P. becki)* which is probably best regarded as a small race, is only known from the central tropical Pacific, and is sooty black all over except for a white patch on the belly, even darker than the Phoenix Petrel, and lacking the white chin found in that species and the Magenta Petrel, the only two other species occurring in the Pacific with white bellies but a dark underwing. It can be recognised in the hand by its very massive thickened bill; there is no adult specimen in any British Museum, so a skin would be very useful.

Phoenix Petrel *(Pterodroma alba)*. This species has a range lying immediately outside that of the last all round the borders of the tropical Pacific, and differs from it in its measurements, its slightly paler, browner coloration, and in having a pale or white chin and dark breast-band as well as a white belly. The underwing is also dark, as in the Magenta Petrel, but it occurs in much lower latitudes. J.B.M. reports one at 3°N. 138°W. on 6 March in the area where it seems to be commonest, among other records.

Trinidade Petrel *(Pterodroma arminjoniana)*. This is the same species as the Herald Petrel *(P. heraldica)*, and seems to breed immediately to the south of the last species along the southern border of Oceania, and also in the Mascarene Is. in the Indian Ocean and at South Trinidade in the South Atlantic. It comes in two colour phases; the dark one is all brown, and most likely to be confused with the dark shearwaters, as pointed out last year; the pale phase is very variable, but usually has a pale chin and belly with or without a breast-band and mottled flanks; it can be distinguished from other white-breasted gad-fly petrels by the possession of a mottled brown and white underwing. P.P.O.H. saw one at 18½°S. 107°W. on 21 April, and T.F.S.F. at least four between 30½°S. 46½°W. and 26°S. 43°W. on 24 - 25 July. He describes one as "the same size as a Cape Pigeon; dark brown above, darker on the primaries; throat, upper breast and under-tail-coverts dark brown, underwing brown, abdomen white. Less heavily built than Schlegel's Petrel, with narrow angled wings and a more rapid flight, and less gliding." A second was mainly white below with a pale patch near the wing tip, a third had dirty brown underpants. The water temperature was 66° - 70°F. It seems clear that this bird must be very hard to identify where many related species occur with it, in the Pacific.

Kermadec Petrel *(Pterodroma phillipii)* (should be *P. neglecta*). This is another variable species occurring to the south of the last in the

Pacific, but not in the Atlantic or Indian Ocean. All colour phases are distinguished from related species by the presence of a well-defined white patch in the centre of the tip of the spread wing; the dark phase must be distinguished from the dark shearwaters and Great-winged Petrel, which have uniformly dark wings, and Solander's and Murphy's petrel, which show some but less white on the wing; and the pale phase, which has a white head and breast, must be distinguished from the White-headed Petrel, which has an all dark wing, the Southern Fulmar, which has a pink bill, and the White-necked Petrel, which has an all-white underwing, among other species. A.S. describes several birds which were probably this species between 41°S. 179°E. and 16°S. 113½°W. during 5 - 16 Feb., among other records, mentioning the white wing-patch.

Soft-plumaged Petrel *(Pterodroma mollis)*. This bird should not cause much difficuly, since it is the only medium-sized gad-fly petrel in the Indo-Atlantic area with a grey back, white face and underpants, darker ear and wing coverts, and a dark underwing. T.F.S.F. describes a couple of possible birds in the South Atlantic; the first at 26°S. 41°W. on 16 July had a mottled underwing, which suggests the Trinidade Petrel; the second at 31°S. 47°W. next day was slaty grey above with mainly brown wings and a grey breast band, and sounds a bit more like this species, though the description is still a bit indefinite. A.S. describes three seen off west Australia at 22°S. 104°E. on 4 July as having long wings with the upper parts grey-brown, the underparts white, the underwing grey-brown, and the face white in places with a dark patch; which is more satisfactory.

White-necked Petrel *(Pterodroma externa)*. The Hawaiian Petrel *(P. phaeopygia)* is possibly best regarded as a race of this species. It may be distinguished at once from other large Pacific gad-fly petrels by the possession of dark upperparts, a white face and underparts, and a pure white centre to the underwing. It seems to be quite a strong migrant, breeding in the north and south and wintering in the tropics, the two populations replacing each other as winter visitors to the tropics at opposite seasons. Birds which P.P.O.H. identified as White-headed Petrels at 30½°S. 163°E. on 9 April seem likely to have been this species since they had a white underwing; his chief officer reported another possible bird at 18½°S. 107°W. on 23 April. J.B.M. reports several at 7°S. 83°W. on 25 Feb., and again at 3°N. 138°W. on 6 March. A.S. saw one at 7°N. 80°W. on 22 Feb. and J.H.A. reports a hundred feeding on the edge of a rain-squall at 16°N. 159½°W. on 11 Oct. 1959, though unfortunately he gives no description and this usually seems to be rather a solitary bird, whereas several social white-breasted Shearwaters might occur in this region, among other species. Thus the species seems to range very widely over the central Pacific; there is an example of the Hawaiian subspecies in moult in the Leiden Museum from Ternate in the Moluccas on 17 April 1862, so that it seems possible it should be looked for in the unknown area north of the East Indies as well.

Bonin Petrel *(Pterodroma hypoleuca)*. This is probably best regarded as a small relative of the last species, bearing the same sort of relationship to it that the Dusky Shearwater and its allies do to the Manx. It occurs in much the same or perhaps slightly higher latitudes than the White-necked Petrel, but breeds in the winter at least at the North Pacific sites, when the White-necked Petrel is away in the tropics. It

may be distinguished from the last species by its small size, from the next group by its slightly heavier build, more uniform upperparts which are black with pale feather edges in the north Pacific race and progressively greyer in those from the Kermadek and Chatham Islands, the possession of a marked dark bar in front of the white of the underwing, and pink legs with dark tips to the toes. A.S. gives a detailed description of a bird of the Chatham race *(P.h.axillaris)* which came aboard at 39°S. 175°W. on 25 Dec. 1959, mentioning the grey back and flesh legs and feet with dark toe-tips, among other characters.

Cook's Petrel, Stejneger's Petrel and Gould's Petrel *(Pterodroma cookii, P. longirostris, P. leucoptera)*. These three very closely related species, the "Cookilarias," are very difficult to tell apart or from the races of the last species at sea, though they can be separated by careful measurements in the hand. They may all be told from the last species by their lighter build, more contrasting markings, and especially their blue or bluish-flesh feet with no well-defined dark tip to the toes. Cook's Petrel breeds in New Zealand and Juan Fernandes and seems to range to the south in summer, migrating north to the vicinity of the Aleutians in the southern winter; it is very grey above with a marked dark bar across the upper wing and back like a prion, and shows much white on the wing and tail. Stejneger's Petrel breeds in the same area slightly later in the year, and seems to feed over warmer water in lower latitudes between New Zealand and Peru in summer and California and Japan in the southern winter; it is intermediate in appearance, a bit darker above with less white on the wing and tail. Gould's Petrel keeps to warm water in the tropics from eastern Australia to the Galapagos, and is uniformly dark above and sometimes below as well. P.P.O.H. saw grey-backed birds which were probably Cook's or Stejneger's Petrel at 19½°S. 109°W. and 12°S. 100°W. on 21 and 24 April, and dark backed birds which he thought might be Bonin Petrels but seem more likely to have been Gould's Petrel between 11°S. 98°W. and 8°S. 95°W. on 25 - 26 April, among other records. Small petrels of this type seem to be quite common between New Zealand and the Galapagos in summer, and it would be useful to have some more notes on them here and in their winter quarters in the North Pacific, to show quite how they can all be told apart at sea.

Snow Petrel *(Pagodroma nivea)*.H.M.S. Protector reports single birds at 61°S. 41°W. and 62°S. 59°W. on 2 Jan. and 25 Feb. (D.C.S.).

Bulwer's Petrel *(Bulweria bulwerii)*. C.R.S.P. saw one in the Atlantic at 22°N. 17½°W. on 15 June, and a number off Madeira three days later. J.H.A. and J.B.M. saw single birds in the Pacific at 6°N. 150°W. on 8 March and 21°N. 158°W. on 28 June. There is a bird from Ternate in the Molluccas in the Copenhagen Museum.

Jouanin's Petrel *(Bulweria fallax)*. A photograph of a bird which came aboard at 11½°N. 57°E. on 25 May by N.B. was published in *Sea Swallow* last year. D.M.N. and G.E.M. among others have produced a number of additional sight records from the Arabian Sea and Gulfs of Aden and Oman, and especially the regions off Socotra and the Kuria Muria Is.; it is clearly quite common there. The British Museum still needs a specimen, if any should come to grief.

Macgillivray's Petrel *(Bulweria macgillivrayi)*. This bird is still only known from a young bird taken on Ngau, Fiji, in 1855. It is like a heavily-built Bulwer's Petrel with short legs. Who is going to rediscover it?

We receive a fair number of records, but many of them, especially those referring to dark, white-rumped species, are clearly misidentified. In general, only Wilson's Storm-petrel habitually follows ships, though others may do so exceptionally, so most records probably refer to this species. It should also be remembered that many species can be distinguished by their manner of flight, the southern species usually "walking on the water" with spread wings, while the northern ones of the genus *Oceanodroma* swoop up and down like terns. A few like the Fork-tailed and Grey-backed Storm-petrels are resident in high latitudes, but most of them migrate to moult in the high-plankton areas of the tropics in winter, so many species can be expected there, especially in the regions of upwelling off California, Peru, west and south west Africa, Arabia, north of the East Indies and around the Kermadek Islands, and along the borders of the counter-current near the Equator in the open ocean. Much more information is required concerning the distribution of seabirds in these regions.

Wilson's Storm-petrel *(Oceanites oceanicus)*. Most records from the tropics in the southern winter probably refer to this species, although they tend to be reported as a variety of other things. Wilson's Petrel may be recognised by its distinctive, rather hesitating flight over the water, sometimes walking on the surface, sometimes skimming like a swallow, and by the fact that it is the only dark, white-rumped storm-petrel which normally shows the feet beyond the tail in flight, though the distinctive yellow webs are normally impossible to see at sea. In the far south H.M.S. Protector recorded birds at intervals throughout the summer, and they were numerous off Deception Is. on 23 and 25 Feb. (D.C.S.). In the Atlantic J.O.B. saw the first migrants at 31°N. 63½°W. on 30 April, and P.P.O.H. had one of the most northerly records at 36°N. 43°W. on 13 May, while many occurred further south during the rest of the summer. M.E.J. saw about 100 in the western Mediterranean at 37°16′N. 00°56′E. on 9 August, and in the Indian Ocean D.M.N. and G.E.M. saw the first migrants at 62°N. 62°E. on 28 May, the birds becoming common north to the Straits of Hormuz and central Red Sea thereafter. There are few or no records from the Pacific; much more information is needed about the species' distribution there.

White-faced Storm-petrel *(Pelagodroma marina)*. Several people seem to be confusing this species with the Phalaropes where they winter together in the tropics. Although they look much the same their behaviour is very different; unlike the Phalaropes, the Storm-petrel is usually fairly solitary and never flocks or swims, but feeds by "walking on the water" with spread wings like other southern Storm-petrels. It seems to come on board ships quite often; P. H. King has sent a bird-in-hand form from the vicinity of the breeding stations in the Australian Bight at 36°S. 13½°E. on 23 Sept., W.L.N.F. had one on board off the Maldives at 10½°N. 75°E. on 26 June, and A.S. another on board on the opposite side of the Arabian Sea at 12°N. 52°E. on 24 June. D.M.N. and G.E.M. saw the first migrants in the northern Arabian Sea at 25°N. 62°E. on 28 May, C.R.S.P. a bird in the South Atlantic at 23°S. 11°E. on 21 June, and H.M.S. Protector something called a "White-faced Diving-petrel" off Peru at 18°S. 76°W. on 16 April.

Black-bellied Storm-petrel *Fregetta tropica*. H.M.S. Protector saw small numbers regularly in summer in the far south from Dec. to Feb.

between 35°-61°S. and 44½°-69°W., and they were numerous off Deception Is. on 25 Feb. (D.C.S.). This species and the virtually indistinguishable White-bellied Storm-petrel seem to winter in the central tropics, and some more notes on them there, and if possible any stray specimens, would be very useful. I described them in *Sea Swallow* last year, but it may be worth repeating that both are rather variable, and always have dark upperparts, head and neck, and usually a white rump and underparts, but that whereas the Black-bellied Storm-petrel is usualy white below with a dark line down the centre of the belly, but may be all white, the White-bellied Storm-petrel is usually all white below, but may be partly or completely dark, the dark birds also having dark rumps.

British Storm-petrel *(Hydrobates pelagicus)*. This species differs from Wilson's Storm-petrel in its small size, and more hesitant, almost bat-like flight. It may also exceptionally follow ships, but this seems unusual. It breeds on islands off the west coast of Europe and in the western Mediterranean, and apparently winters off west and south Africa, where it is possibly the storm-petrel most likely to follow ships in the northern winter, when Wilson's Petrel is in the south. A dozen birds seen off West Africa on the Equator at 10°W. by W.L.N.F. on 11 March were described as looking very dark with square tails and no feet showing and were doubtless this species, as were some fifty birds which followed the ship for part of the afternoon at 37°10'N. 6°07'E. off Malta on 29 March (M.E.J.). R.W. also describes a bird which came on board at 56°N. 30°40'W. on 24 Oct., unusually far out in the Atlantic according to present information, though he mentions the characteristic white mark under the wing.

Galapagos Storm-petrel *(Oceanodroma tethys)*. J.B.M. reports small dark storm-petrels with white rumps at intervals from Puerto Chicama, Peru, on 24 Feb. to 2½°S. 111°W. on 1 March, at first in the wake and then hunting singly at sea, one coming aboard the first day. They seem likely to have been this species, but more notes would have been useful.

Leach's Storm-petrel *(Oceanodroma leucorhoa)*. This bird replaces Wilson's Storm-petrel as the commonest species in the Atlantic and Pacific tropics in our winter; it may be distinguished at once by its very different flight, bounding, like a Black Tern. Among other records, a number of birds came on board in the Atlantic, including one at 4°S. 36°W. on 30 July which showed white edges to the coverts and secondaries so that it sounds like a first year bird summering in the winter quarters (J.O.B.), one at 50½°N. 59°W. in the summer quarters on 26 Oct. (R.W.), and two at 45°N. 8½°W. on 18 Oct. (J.O.B.) and 29½°N. 40°W. on 13 Nov. (R. E. H. Eastman), which were probably on autumn migration. In the Pacific A.S. found them numerous near the Galapagos and at 3½°N. 84½°W. on 21 - 22 Feb., and J.B.M. saw what sounds like three of this species near the border of the equatorial current at 1°N. 127°W. on 4 March, describing the long wings, tumbling flight, and a more prominent white rump than in supposed Galapagos Storm-petrels seen earlier in the voyage. The water was slightly cool here, and at night became phosphorescent and smelt, as if plankton was present.

Least Storm-petrel *(Halocyptena microsoma)*. J.B.M. also saw a number of small, uniformly dark petrels with long wings, short tails and a confused, tumbling, bat-like flight among the waves off the coast of Peru from 5°S. 94°W. to 4°S. 99°W. on 26 - 27 Feb. which he thought might be this species.

Tropic-birds *(Phaethontidae)*

These were reported a number of times in the vicinity of recognised breeding sites, and occasionally at sea in the tropics. There were few remarkable records, though J.H.A. saw a Red-tailed Tropic-bird *(Phaethon rubricauda)* at close quarters for 1½ hours at 30°N. 150°W. on 26 July and P.P.O.H. had one on board at 12°S 100°W. on 25 April, while J.O.B. had a White-tailed Tropic-bird *(Phaeton lepturus)* on board at 18°N. 119°E. on 15 July.

Gannets and Boobies *(Sulidae)*

These were also seen regularly in the vicinity of recognised breeding stations. Among other records, D.M.N. and G.E.M. saw Northern Gannets *(Moris bassanus)* along the North African coast at 1°E. and off Zemba Is. on 11-12 Feb., C.R.S.P. first met Cape Gannets *(Moris capensis)* at 23°S. 11°E. when travelling south, and J.O.B. saw two Blue-faced Boobies *(Sula dactylatra)* at 9°N. 110½°E. on 29 July and ten to twenty Brown Boobies *(Sula leucogaster)* at 3½°N. 119°E. on 30 Aug. in the little-known area east of Singapore. Members might also bear in mind that ringing returns have now shown that all the true Gannets migrate well into the tropics in winter, the young birds going further and staying in low latitudes in summer for the first year or two of their lives, so that the possibility of their presence must be born in mind when identifying strange *Sulidae* in the tropics.

Cormorants *(Phalacrocoracidae)*

The only species to produce important records is the Socotra Cormorant *Phalacrocorax nigrogularis*. D.M.N. and G.E.M. saw a few near Halul Is. at 25°N. 52½°E. in the Persian Gulf on 18 March, eight to ten thousand flying towards Quarnian, Azaqa and Adhana Is. ten miles to the south in a stream at dusk on 19 March, and two to three thousand flying towards Sir Abu Nu'air Is. at Dubai, north Oman, on 11 April.

Frigate-birds *(Fregatidae)*

These were also reported from recognised breeding areas, particularly the Caribbean and adjacent coasts. Among other records, J.H.A. saw a Great Frigate Bird *(Fregata minor)* for about an hour at 16°N. 157°W. on 9 Oct. It fed itself, and ignored offal. It would be useful to have more notes on quite how far these birds go out to sea, and what they do there.

Phalaropes *(Phalaropopidae)*

These seem to have been confused with the White-faced Storm-petrel several times at sea in their winter quarters. Unlike the storm-petrels, they flock and swim freely, and usually fly rather fast but do not "patter" when they take to the air. It is doubtful if the species are often identified correctly at sea in winter plumage, and for this reason more identifications of birds in the hand are urgently required. Among other records, S.C. saw flocks of hundred, fifty, and twenty-three and a number of odd birds in two hours at 43°N. 43°W. on 26 July. They seemed rather light in colour above, which suggests the Grey Phalarope *(Phalaropus fulicarius)*. W.P.C. saw another possible Grey at 41°N. 10°W. on 15 Sept., and D.M.N. and G.E.M. saw large and small flocks of thousands of Red-necked Phalaropes *(P. lobatus)* along the north coast of

Somaliland, in the Hormuz Strait and eastern Persian Gulf during the spring, with a few flocks of Grey Phalaropes among them.

Skuas *(Stercorariidae)*

We receive a good many records of Skuas on migration or in their winter quarters, but in many cases the identifications are unsatisfactory because the birds are seldom seen well and in autumn especially many of them are often juveniles or in moult and virtually unidentifiable. In general, Great Skuas *(Catharacta skua)* seem to disperse at sea throughout the temperate parts of the North Atlantic and Southern Ocean in winter, Pomarine Skuas *(Stercorarius pomarinus)* stay in fairly low latitudes and are the species usually seen in the tropics, Arctic Skuas *(Stercorarius parasiticus)* pass through this zone on migration in spring and autumn and are seen around 30°-40°S. in our winter, and Long-tailed Skuas *(Stercorarius longicaudatus)* may go further south along the coasts of South America, but rather little seems to be known about them.

Great Skuas were seen at sea quite often in the North Atlantic, the most notable record being one of two birds at 39°N. 69½°W. on 13 Feb. by J.O.B., while the same observer saw one in the Mediterranean at 37°N. 3°E. on 15 Oct., and D.M.N. and G.E.M. saw one there west of Cape Bon on 12 Feb. A Brown Skua with white flashes on the wings which P.P.O.H. saw attacking gulls in the harbour at Port Said on 20 Aug. seems more likely to have been a young Arctic or Pomarine. In the Arabian Sea J.O.B. saw a similar bird in the approaches to the Gulf at 22°N. 61°E. on 3 July, while D.M.N. and G.E.M. report another further up the Gulf at 26°N. 52°E. on 20 May. In the southern hemisphere J.B.M. reports a definite Great Skua in the central Indian Ocean at 12°S. 74°E. on 24 May, while C.R.S.P. found that they extended north off S.W. Africa to 29°S. in June and July. In the far south H.M.S. Protector reported them numerous in the breeding area at 62°S. 60°W. on 23 Feb.

D.M.N. and G.E.M. saw definite Pomarines around the south coast of Arabia and in the Persian Gulf at intervals in March and again in May, but apparently never more than half-a-dozen or so together. M.E.J. also saw one at 22½°N. 37½°E. in the northern Red Sea on 5 April, probably on migration. There are no important records from the recognised wintering area off West Africa this year, but J.O.B. saw several along the adjacent coast of America, including five or more at 11°N. 65°W. and 18°N. 68°W. on 1 and 20 Jan., at least four at 16°N. 66½°W. on 6 Feb., and one at 23°N. 58°W. on 14 Apr.

There are no very remarkable records of Arctic or Long-tailed Skuas.

Gulls *(Laridae)*

This is one of the groups reported most often, but since most of the records come from coasts and harbours where the birds are already well known to land-based bird-watchers there are few outstanding records deserving quotation. However, I should like to emphasise that regular systematic counts of the numbers of each species, adults and juveniles, and the number of birds in breeding plumage in harbours which are visited regularly could still prove useful over the course of time, as well as notes of the occurrence of birds at sea. Unfortunately, there are not enough records in one year's yield of reports to repay a detailed analysis.

Red Sea Black-headed Gull *(Larus leucopthalmus)*. Seen regularly between Suez and Aden. M.E.J. saw one in the harbour at Port Said on 2 April, and it has strayed north to Haifa in the past.

Aden Gull *(Larus hemprichi)*. Regular in the southern Red Sea and along the adjacent coasts of the Arabian Sea and in the Persian Gulf. It would be useful to have an account of how exactly this bird and the last differ in their habits. A.B.D. noticed that at 13°N. 43°E. the gulls left the ship when a haze developed, but returned afterwards; he comments that in Suez and Aden no gulls ever alighted on board. Maybe they have more sense!

Herring, Lesser and Greater Black-backed Gulls *(Larus argentatus, L. fuscus* and *L. marinus)*. J.O.B. remarks that the first two can be told apart from below by the fact that the Herring Gull has the dark patch at the tip confined to a small crescent as on the top of the wing, whereas the Black-back has a much larger dark patch; I had also noticed this. Greater Black-backs are still being recorded rather too often in the Mediterranean area; apparently they do occur there, but they are very likely to be confused with Scandinavian Lesser Black-backs, which are just as dark above, and occur there more commonly. A clear view of the colour of the legs is necessary to settle the identity; unfortunately, even this varies at times.

Iceland Gull *(Larus leucopterus)*. J.O.B. reports several birds woth at most only grey-brown bars on otherwise white wing-tips among Herring Gulls off Newfoundland at 49°N. 58°- 59°W. on 25 - 27 April.

Common Gull and Audouin's Gull *(Larus canus* and *L. audouini)*. European Common Gulls seem to migrate mainly west, and it is not clear to what extent they reach the Mediterranean at all, and especially the south coast; old records from the Red Sea and Persian Gulf would seem to need verifying again. Audouin's Gull seems to spend much of its time out at sea in the Mediterranean, frequenting areas where there are turbulent currents, but sometimes visits ports; it is also not clear how common it is in different areas. These two species deserve more study in the Mediterranean in winter.

Northern Black-headed Gull, Mediterranean Black-headed Gull, Slender-billed Gull, and Little Gull *(Larus ridibundus, L. melanocephalus, L. genei, L. minutus)*. The Northern Black-headed Gull seems to be common all round the coasts and harbours of western and southern Europe during most of the year, south to at least Aden in the winter, and we have many reports of it, but the other three species seem to be much overlooked among flocks of Blackheads. Russian ringing recoveries show that the Mediterranean Gull winters mainly along the north shore of the Mediterranean, a fair number reaching the Atlantic, and a few the north-west coast of Europe, while the Slender-billed Gull winters along the south shore of the Mediterranean, in the Red Sea and Persian Gulf. The Slender-bill seems to keep mainly to shallow water along the shore, while the Mediterranean Gull may go out to sea a good deal; the Little Gull seems to winter mainly out at sea in the Mediterranean, though a good few reach the coasts of N.W. Europe and the Atlantic, and it is one of the commonest European vagrants to America. When are we going to have some more records of these birds? The most notable this year are a Little Gull at 37°N. 2°E. off the Algerian Coast on 21 Sept. (W.P.C.), and flocks of up to 200 Slender-bills along the Oman coast in spring (D.M.N. and G.E.M.)

Swallow-tailed Gull *(Creagrus furcatus)*. P.P.O.H. saw it off the Galapagos as 2½°S. 89°W. on 27 April.

Sabine's Gull *(Xema sabini)*. In the past this bird has been known to breed in the Arctic and migrate south in the Pacific to winter at sea off Peru. There are many records of its appearance along the coast of western Europe in the past, but until recently no record of where these birds went in the winter. In the last few years a couple of birds have turned up off the coast of S.W. Africa; members might look for it at sea here.

Terns *(Sternidae)*

We also have a good many records of terns, but they either come from accepted breeding stations, or the identifications often seem very uncertain, because birds met at sea are usually in winter plumage and are rarely seen well. None the less even uncertain records are useful since they indicate possible migration routes and wintering areas; with luck we may be able to work out what the birds are later by studying ringing returns and bird-in-hand forms. Some species seem to settle on ships quite often, and detailed notes on these would be very useful for identifying other birds seen at sea and also working out details of the winter plumages and moults of each species. Particular attention should be paid to the colour of the soft parts, since these change during the year in some cases, and cannot be seen in skins. Unfortunately there are few outstanding records this year, but I will quote a few.

Caspian Tern *(Hydroprogne tschegrava)*. Large black-capped terns with stout red bills were seen by P.P.O.H. at Port Tewfik on the Suez Canal on 8 Sept. and A.B.D. off Cape Guardafui on 7 Oct.; a lot of birds seem to migrate this way.

Roseate Tern *(Sterna dougalli)*. W.P.C. had one on board in the approaches to Gibraltar at 36½°N. 7½°W. on 16 Sept. C.R.S.P. saw one at close quarters at Madeira on 18 July; only the Common Tern is definitely known to breed at Madeira though there is one record of the collection of a young Roseate there in the past, and it certainly breeds in the Azores; perhaps it should be looked for at Madeira as well. W.L.N.F. had another possible bird on board off Port Elizabeth, South Africa, on 22 March.

Brown-winged Tern *(Sterna anaethetus)*. M.E.J. saw a flock of some 6,000 Sooty and Brown-winged Terns at 13°02'N. 43°11'E. in the Gulf of Aden on 7 April. D.M.N. and G.E.M. also saw very large numbers of Brown-winged Terns in the Persian Gulf area during the spring, where they are known to breed in large numbers.

Sooty Tern *(Sterna fuscata)*. In the Pacific, J.B.M. saw large flocks at 19°N. 163½°E. near Wake Island on 18 March, and J.O.B. saw some seven at 22°N. 124°E. on 16 August. It would be interesting to have more information concerning where and how these birds feed at sea, since while all other terns are known to feed fairly close to the shore, immense numbers of Sooty Terns breed on many tropical islands and feed somewhere out at sea.

Auks *(Alcidae)*

M.E.J. reports a Little Auk *(Plautus alle)* off Ushant on 13 Aug. Unfortunately although he reports that he passed very close to it and saw it well, he mentions no details except the small size.

The following seven forms were sent in in 1960: —

Species	*Observer*	*Date*	*Position*	*Ring*
Leach's Storm-petrel				
(Oceanodroma leucorhoa)				
	J. O. Brinkley	18.10.60	44°N. 9½°W.	N.I.O./ A.454
	R. E. H. Eastman	13.11.60	29°38′N. 40°15′W.	—
	T. F. S. Fripp	30. 7.60	3°41′S. 36°04′W.	—
Wedge-tailed Shearwater				
(Puffinus pacificus)				
	W. L. N. Fisken	15. 7.60	0°14′S. 86°24′E.	—
White-faced Storm-petrel				
(Pelagodroma marina)				
	P. H. King	23. 9.60	37°52′S. 133°15′E.	—
Persian Shearwater				
(Puffinus lherminieri persicus)				
	D. M. Neale	20. 7.60	26°N. 56°55′E.	Died
White-cheeked Tern				
(Sterna repressa)				
	G. E. Miles	24. 5.60	24°55′N. 54°21′E.	—

BIRD-IN-HAND REPORTS

It is a pleasure to be able to report the success of these forms. They are not only starting to provide reliable evidence for the identification of birds which come aboard, they are also beginning to provide important new information concerning the colour of the soft parts of birds in life and their overall dimensions, two things which cannot be discovered from dried skins. Thus Captain Fisken has confirmed that at least some Wedge-tailed Shearwaters have blue-black, not red, or yellow, or green, or bronze bills, as reported in the literature, Mr. King that White-faced Storm-petrels (and probably a good many other species as well) have pink webs to the feet, and not yellow ones as reported from skins, and Mr. Agnew has shown that Jouanin's Petrel is some twelve inches long with a wingspan of 32 inches.

However, I should like to point out that out of thirteen forms from the last two years in front of me, only eight were identified correctly in the first instance: one (Captain Fisken's Wedge-tailed Shearwater) was sent in for identification, one proposed identification is inconclusive because of an inadequate description and inaccurate measurements, and three were apparently wrongly identified as a result of inaccurate measurements. This observation gives rise to some hair-raising reflections on the reliability of sight-records, so I urge members to take every chance to check their doubtful sight identifications by looking at birds that come aboard and watching them fly away afterwards.

Incidentally, the parts of the bird-in-hand form most useful for confirming identifications by comparisons with skins are the general descriptions of the plumage and the measurements of the extremities, while the parts most likely to produce new information are those referring to locality, voice and behaviour, diet, colour of soft parts, moult, parasites, and overall dimensions, so that members should pay attention to all these things. Measurements are particularly important, and at the moment rather erratic; great care should be taken with these since they are often the deciding factor in difficult identifications. Unfortunately living birds seem to be slightly larger than dried skins, so that results from the forms are not always directly comparable with other material; but even they should be very useful for comparison with future forms.

CONCENTRATIONS OF BIRDS OFF THE COASTS OF SOMALILAND AND OMAN

Probably the most important observations of the year were made by Messrs. D. M. Neale and G. E. Miles around the approaches to the Red Sea and Persian Gulf, where concentrations of thousands of birds of a variety of species were found feeding on masses of red and blue plankton and shoals of small fish in areas of turbulence off the coast. It seems best to summarise these observations together.

In the Gulf of Aden something over a thousand Persian Shearwaters, many flocks of up to forty Red-necked and a few Grey Phalaropes, a few Northern Black-headed and Aden Gulls, and occasional Pomarine Skuas and Tropic-birds were seen off the coast in the vicinity of Elayu on 26 - 27 February. Large numbers of Brown Boobies and about a third as many Blue-faced Boobies were also seen visiting an island off the coast, possibly Mait Island, which is already known to hold a large seabird colony.

In the Arabian Sea many Wedge-tailed Shearwaters and Jouanin's Petrels and parties of up to 800 Phalaropes were seen off the Kuria Muria and Masira islands on 2 - 3 March, when many Blue-faced Boobies were visiting the Kuria Muria Islands, and a Pomarine Skua, a Persian Shearwater, and Lesser Black-backed and Herring Gulls were seen off Masira Island.

In the Persian Gulf congregations of up to eight or ten thousand Socotra Cormorants, up to five or six thousand Phalaropes, over a thousand Persian Shearwaters, hundreds of Crested, Lesser Crested, Brown-winged and White-cheeked Terns and Slender-billed Gulls, many Pomarine Skuas, Aden Gulls, and a Great Black-headed Gull and Tropic-birds among other species were seen in the Straits of Hormuz, around Dubai on the north coast of Oman, and around some of the Gulf islands among other places in March and April. The Phalaropes were thought to be moving north up the Gulf at this time, while more skuas seem to have been recorded then than earlier in the year. Wilsons and White-faced Storm-petrels and Pale-footed Shearwaters were seen in the mouth of the Gulf of Oman first on 25 - 28 May. The Pale-footed Shearwaters at least stayed on till October, moulting during the last part of their time in the area, when they spent much time on the water.

LAND BIRDS AT SEA

INTRODUCTION

By R. E. Moreau, M.A.,
President of the British Ornithologists' Union

The attention that the members of the R.N.B.W.S. are now giving to land-birds observed at sea is an interesting and important development. The subject is one in which I have been personally interested since the time when I used to travel backwards and forwards between Tanganyika and Britain by the old slow way. It is probably true that, apart from some sections of the Atlantic, the Mediterranean and the Red Sea are the only areas where land-birds have been much recorded on and from ships. Yet here too there are remarkable gaps. We know from the number of European and Asiatic species that winter regularly in tropical and southern Africa that birds by the hundreds of millions must cross these two seas; yet many species have still wholly or almost wholly escaped detection on the way. The most notable absentees of all are the ducks, half a dozen species of which winter in some numbers south of the Sahara.

It is, of course, remarkable how, travelling over the same route at the same season of the year, the migrants seen vary. No doubt the results are affected partly by weather they meet on the way and partly by that over the observer's head. It is now commonplace, which has been most strongly supported by radar observations, that in fact the ground observer sees little of the game. Massive migration, of which he sees nothing, may be going on a few hundred feet up. The most spectacular demonstration of this, which I once had, was one April, on the course from Port Said to Gibraltar. Up to the mouth of the Ionian Sea we had been steaming in warm sunny weather and had seen no migrants at all. In mid-afternoon the weather suddenly broke, with cold squalls from the northwest; and in half an hour we had recorded twenty-five species of migrant, most of them on board. Such observations are of great interest, in particular when weather data can be provided and also ascertained for neighbouring areas.

Especially when birds have come aboard in a state of exhaustion and can easily be caught, it is worth while to weigh them if there are means of doing so fairly accurately—at least to the nearest gram (about 1/30 oz.) in the case of a small bird. From this eventually, by comparison with weights of breeding birds of the same species and of birds that have put on their pre-migration fat, it may be possible to deduce to what extent the birds that had taken refuge on the ship had depleted their resources.

Two much-traversed areas from which there are remarkably few records are the Bay of Biscay and the Arabian Sea. We know that in autumn a great many birds from northwestern Europe travel round the east side of the Bay, but the extent to which birds cross it direct to northwestern Spain is still problematical. One can collect from Galician fishermen accounts of how they have met with large numbers of small birds off shore, especially in fog; and the accumulating evidence for many species' powers of prolonged flight tends to increase the probability that considerable numbers may cross the Bay.

Over the Arabian Sea once more arises the question of how much birds cut the corner. A great many birds from Siberia, including the

shrikes, chats, redstarts and Redfooted Falcons, and wheatears and Willow Warblers from even as far east as the Behring Straits, pass to Africa to winter. Most of the species concerned have been recorded in Arabia, but not abundantly, and it may be that a lot of birds from Asia fly directly across the Arabian Sea to make a landfall on the East African coast. So far, records outside the Gulf of Aden are rather few, but they include several kinds of song-birds as well as bee-eaters, Short-eared Owls and falcons, flying with a northeast wind parallel to the coast of Italian Somaliland as much as one hundred miles off shore; and even more remarkably bee-eaters and a falcon flying due west about one hundred miles from Mogadishu. The fact that none of the birds showed any sign of distress—some simply overhauled the ship and passed it—suggests that migrants may cross the Arabian Sea in quite large numbers, perhaps in several directions. East and West it makes an exceptionally long sea-crossing. But the circumstances here seem to be in strong contrast with those off the Atlantic coast of northwest Africa, where the land-birds found at sea seem usually to be in a bad way and the victims of hot off-shore gales.

Once again, more observations are wanted; and this of course applies to every sea-way in the world.

REPORTS ON "ASSISTED PASSAGES"

From time to time land birds which alight on ships seem very loathe to leave and are carried by the ship for great distances. On other occasions our members have given food and shelter to birds found in an exhausted condition onboard and have released them when they were clearly fit enough to be given their freedom.

The following instances have been reported during 1960/61.

Capt. F. G. Bevis, M.V. "Rakaiia," New Zealand Shipping Co., quotes this remarkable instance:—

> On 5th June, 1960, a homing pigeon landed onboard in an exhausted state about 400 miles west of Cape Finisterre. On its right leg was a band marked N.U.H.W. T1881: 59. The ship proceeded to Curacoa and later passed through the Panama Canal, but the pigeon seemed in no mind to leave the ship. Finally, on 20th June, when the ship was 600 miles west of Equador, the bird quitted the ship flying away in the direction of the Galapagos Islands.

The owner of the pigeon has been traced and told the story of the pigeon that would not come home!

Capt. E. F. Aikman, s.s. *Beaverbrook*, discovered a Slate-coloured Junco and a White-throated Sparrow onboard his ship on 18th September, 1961, off Belle Isle, Labrador. These two birds remained onboard in complete freedom during the crossing of the North Atlantic, and were last seen in good health when the ship was in the English Channel on 23rd September.

Second Officer Agnew, s.s. Lincoln, reported a Kestrel onboard 400 miles south of the Canary Islands on 29th January, 1961. The kestrel remained onboard for eight days during which time the ship called at St. Vincent, Cape Verde Isles and at Dakar en route for Lagos where the bird was last seen on 6th February.

Chief Officer T. B. Scott, s.s. Lakonia, took care of two Turtle

Doves which came aboard in an exhausted condition in mid North Atlantic, 51°38′N., 25°27′W., on 13th May, 1961. A cage was provided for the pair, and first aid administered by milk fed through an eye-dropper. The doves were fed on barley, rice and lentils, and were subsequently handed over to the Curator of the Montreal Zoo when the ship arrived in port.

REPORTS OF LAND BIRDS AT SEA—ANALYSIS

Compiled by Captain G. S. Tuck, R.N.

Note 1—Where the letter d. followed by a point of the compass follows the name of a bird this indicates the recorded direction of departure flight. e.g. d. N.E.—departure flight North East.

Note 2—Species quoted in reports as identification "uncertain" are not included in this analysis except in a few cases where sp is shown or remarks make this clear.

1960

NORTH ATLANTIC—EAST SIDE

Fifth Engineer J. O. Brinkley, s.s. Hinea.

23rd MARCH 52°30′N. 4°15′E.
4 plus Starlings *(Sturnus vulgaris)* onboard.

5th APRIL 52°N. 2°30′E.
6 plus Starlings *(Sturnus vulgaris)* onboard.

Capt. A. J. F. Colquhoun, s.s. Elysia.

30th MAY 46°40′N. 8°18′W.
4 Turtle Doves *(Streptopelia turtur)* onboard all day.

Apprentice S. Chapman, s.s. Birmingham City.

24th AUGUST 50°44′N. 13°W. 200′ S.W. of Ireland.
1 Whimbrel *(Numenius phaeopus)* fell exhausted into the sea and was drowned.

11th OCTOBER 51°25′N. 06°11′W. Montreal to Avonmouth, U.K.
1 Merlin *(Falco columbarius)* landed onboard carrying a small bird in its talons.

Fifth Engineer J. O. Brinkley, s.s. Hinea. Mediterranean to Holland.

17th OCTOBER 39°15′N. 9°30′W.
1 Wagtail (sp) d. E.

Commander R. Walgate, R.N.R. s.s. Empress of England.

23rd OCTOBER 56°32′N. 16°W. 500′ S. of Iceland and 300′ N.W. of Ireland.
2 Redwings *(Turdus musicus)* onboard.

Capt. A. F. Aikman, s.s. Beaverlake. U.K. to Montreal.

25th OCTOBER 51°N. 9°47′W. 30′ S. of Cape Clear, Ireland.
1 Golden Plover *(Charadrius apricarius)* onboard. Right leg broken.

Engineer Apprentice R. G. H. Easthan, s.s. Hatasia.

28th OCTOBER 37°30′N. 7°22′W. Off Cape Trafalgar.
Invasion of migrants. 2 Robins *(Erithacus rubecula)*, 2 White Wagtails *(Motacilla. a. alba)*, 1 Chaffinch *(Fringilla coelebs)*, 2 Redstarts *(P. phoenicurus)* d. S., 1 Yellowhammer *(Emberiga vitrinella)*, 18 Missel Thrushes *(Turdus viscivorus)* d. S.S.E.

22nd OCTOBER 43°02′N. 11°23′W.
1 White Wagtail *(Motacilla. a. alba)* onboard.

Third Officer M. E. Jones, s.s. Malakand. London to Port Said.

26th OCTOBER 46°44′N. 05°53′W. (Central Bay of Biscay).
2 Black Redstarts *(Phoenicurus ochruros)*. Onboard all day.
1 Chaffinch *(Fringilla coelebs)*.
1 Snow Bunting *(Plectrophenax nivalis)*.

28th OCTOBER 37°N. 09°W. (Off Cape St. Vincent).
1 Chaffinch *(Fringilla coelebs)*.

1960

NORTH ATLANTIC—WEST SIDE

Fifth Engineer J. O. Brinkley, s.s. Hinea.

9th MAY 23°N. 69°W.
1 American Redstart *(Setophaga ruticilla)*.

11th MAY 34°N. 70°30′W.
1 Peregrin Falcon *(Falco peregrinus)* onboard for 24 hours.

15th MAY 37°15′N. 72°30′W.
1 Evening Grosbeak *(Hesperiphona vespertina)*.

Apprentice S. Chapman, s.s. Birmingham City.

10th JUNE 48°29′N. 62°40′W.
1 Sand Martin *(Riparia riparia)*.

16th AUGUST 40°N. 59°W. 400′ S.E. of Nova Scotia.
2 Swallows *(Hirundo rustica)*.

Second Officer T. F. S. Fripp, s.s. Halia.

16th SEPTEMBER 11°N. 59°17′W.
to
17th SEPTEMBER 9°17′N. 53°57′W.
Parties of 2 or 3 Barn Swallows *(Hirundo rustica)* d. S.E.

Apprentice S. Chapman, s.s. Birmingham City. Montreal to Avonmouth.

5th OCTOBER 51°49′N. 55°13′W. U.K.
1 Long-billed Marsh Wren *(Tebnatodytes palustris)* onboard.

6th OCTOBER 53°03′N. 45°23′W.
1 Slate-coloured Junco *(Junco hyemalis)* onboard.
1 American Finch *(Spinus tristis)* onboard.

Capt. E. F. Aikman, s.s. Beaverlake. U.K. to Montreal.

28th OCTOBER 53°38′N. 42°25′W.
American Short Eared Owl *(Asio. f. flammeus)* onboard.

Second Officer T. F. S. Fripp, s.s. Halia. Montreal to British Guiana.

26th NOVEMBER 24°14′N. 65°39′W.
to
27th NOVEMBER 19°28′N. 67°20′W.
Half dozen Barn Swallows *(Hirundo rustica)* d. S.

1961

NORTH ATLANTICA—EAST SIDE

Capt. D. Stam, Dutch Steamship Joseph-Frering. Liberia to Holland.

1st MARCH 28°35′N. 14°48′W. passing through Canary Isles.
1 Hoopoe *(Upupa epops)*, 1 Scops Owl *(Otus scops)*.
2 Kestrels *(Falco tinnanculus)* onboard.

14th MARCH 34°14′N. 11°19′W. Roughly 200′ N.W. of Casablanca.
A whole collection of migrants onboard.
6 House Martins *(Delichon urbica)*, 1 Swallow *(Hirunda rustica)*,
1 Blue Throat—white spotted *(Cyanosylvia. s. cyanecula)*,
1 White Wagtail *(Motacilla alba)*, 2 Wheatears *(Oenanthe oenanthe)*, 2 Skylarks (sp), 4 Willow Warblers *(Phyllo-scopus trochilis)*, 1 Fan-tailed Warbler *(Cisticola juncidis)*,
1 Sub-Alpine Warbler *(Sylvia cantillans)*, 1 Kestrel (sp),

Third Officer M. E. Jones

8th APRIL 41°N. 29°W. Off Azores.
1 American Purple Gallinule *(Porphyrula martinica)* onboard.

9th APRIL 43°47′N. 23°42′W.
2 Phalaropes (sp).

Apprentice S. Chapman, s.s. Birmingham City. Halifax to U.K.

14th APRIL51°02′N. 20°45′W., roughly 350′ W. of Ireland and 600′ S. of Iceland.
1 Grey Lag Goose *(Anser anser)* circled very close to ship and landed in the sea in calm water. It took off and flew eastwards.

Lieutenant Commander D. F. Fieldhouse, R.N., H.M.S. Crossbow. Iceland

17th APRIL Iceland. 18′ South of Hoalsbaker Rock. Patrol.
6 Brent Geese *(Branta bernicla)*, 1 Snipe *(Capella gallinago)*.

21st APRIIL Iceland. 10′ South of Reykjavick Bay.
12 Brent Geese *(Branta bernicla)*.

Capt. P. P. O. Harrison, s.s. *Kent*. U.K. to Eastern Mediterranean.

12th MAY S.E. from Cape St. Vincent, Spain.
Several flocks of Turtle Doves *(Streptopelia turtur)*.
4 Swallows *(Hirundo rustica)* d. N.E.

19th, 20th and 21st May—Crossing Bay of Biscay southwards.
Turtle Doves *(Streptopelia turtur)* seen each day.

Chief Officer T. B. Scott, s.s. Lakonia. U.K. to Montreal and return.

11th MAY 51°22′N. 6°59′W.
1 Dunlin *(Calidris alpina)* onboard, 1 Wheatear *(Oenanthe oenanthe)*. Both birds died during the day.

12th MAY 51°55′N. 17°45′W.
3 House Martins *(Delichon urbica)* and 2 Swallows *(Hirundo rustica)* onboard all day.

13th MAY 51°58′N. 22°26′W.
1 Redshank *(Tringa totanus)* circled ship chased by two Pomarine Skuas but escaped heading N.W.

Capt. A. J. F. Colquhoun, M.V. Elysia. U.K. to New York and return.

20th MAY 49°25′N. 13°35′W. 310′ West by South of Lands End.
7 Racing (Homing) Pigeons onboard all day. Two caught and ring numbers reported to the National Homing Pigeon Union.

NORTH ATLANTIC—WEST SIDE

Apprentice S. Chapman, s.s. Birmingham City. New York to Baltimore.

28th MARCH Passage New York to Baltimore, 5′ East of Barncat Lt. Vessel.

2 Flickers *(Colaptis auratus)*, 4 Mourning Doves *(Zenaida carolinensis)*, 3 Song Sparrows *(Melospiza melodia)* onboard while 12 more Song Sparrows and 1 Cowbird were flying round the ship.

31st MARCH Off Baltimore 39°05′N. 73°48′W.

1 Cowbird, 1 Starling *(Sturnus vulgaris)* onboard.

Third Officer M. E. Jones, s.s. *Malakand*. Florida to U.K.

30th MARCH 27°N. 79°43′W.

2 Chuck-Will's-Widow *(Caprimulgus carolinensis)* onboard all day but caught and eaten by crew!

31st MARCH 28°N. 74°W.

1 Palm Warbler *(Dendroica palm arum)*. Bird died and sent to Bolton N.H. Museum where it was identified as a female.

4th APRIL 33°N. 51°43′W.

3 Phalarope (sp). d. N.

5th APRIL 34°N. 45°47′W.

3 Phalarope (sp). d. N.

7th APRIL 38°N. 34°W.

2 Northern Red-necked Phalaropes.

Capt. A. J. F. Colquhoun, M.V. Egidia. New York to U.K.

29th APRIIL—42°09′N. 60°53′W. 200′ S.E. to Nova Scotia.

1 Peregrine Falcon *(Falco peregrinus)* onboard all day.

Chief Officer T. B. Scott, s.s. *Lagonia*. U.K. to Montreal.

18th MAY 45°47′N. 53°51′W. Off Cape Race.

4 White-throated Sparrows *(Zonotrichia albacollis)*, 2 Song Sparrows *(Melospiza melodia)* onboard. Left ship at Montreal.

19th MAY 47°43′N. 60°23′W. West of Cape Ray.

1 Flicker *(Colaptes auratus)* and 1 Rusty Blackbird *(Euphacus carulinus)* onboard.

2nd JUNE 46°48′N. 56°51′W.

1 Catbird *(Dumatella carolinensis)* onboard.

1 Red-breasted Nuthatch *(Sitta canapenis)* d. N.E.

About 100 Phalaropes, quoted as *(Phalaropus fulicarius)* between Fame Point and Cape Ray (Newfoundland) close enough for identification on many occasions.

Apprentice S. Chapman, s.s. Birmingham City

29th MAY 46°22′N. 40°17′W. 160′ East of St. John's, Newfoundland.

1 Swamp Sparrow *(Helaspiza georgiana)*.

Capt. W. A. Kennedy, R.N.S. Tuscany

6th JULY 19°11′N. 84°08′W. 150 miles south of west tip of Cuba.

1 American Purple Gallinule *(Porphyrula martinica)* onboard.

Captain E. F. Aikman, s.s. Beaverdell. Quebec to Antwerp.

20th AUGUST 49°23′N. 66°16′W.
6 Red-breasted Nuthatch *(Sitta canadensis)* onboard.

1960

MEDITERRANEAN SEA

Lt. Cdr. E. G. May, R.N. R.F.A. "Tide Austral."

7th FEBRUARY 39°35′N. 10°52′E. East of Sardinia.
1 Starling *(Sturnus vulgaris)*.

22nd MARCH 36°20′N. 12°20′E. Sicilian Channel.
2 Whitethroats *(Sylvia communus)*. 1 Whimbrel *(Numemius phaeopus)*. 1 Chaffinch.

Apprentice M. E. Jones, s.s. Malakand.

30th MARCH 36°42′N. 13°01′E. West of Malta.
1 Swallow *(Hirundo rustica)* d. N.E. 8 Swifts *(Apus apus)* d. N.E. 1 Whitethroat *(Sylvia communis)* onboard.

31st MARCH 35°N. 19°44′E.
1 Wheatear *(Oenanthe oenanthe)*.

1st APRIL 33°12′N. 26°22′E.
1 Wheatear, 1 Whitethroat.

Lt. Cdr. E. G. May, R.N. R.F.A. "Tide Austral."

22nd APRIL 35°30′N. 14°30′E. South of Malta.
1 Sand Martin *(Riparia riparia)* d. N. 1 Yellow Wagtail.

26th APRIL 34°10′N. 10°45′E. Gulf of Gabes.
2 Turtle Doves *(streptopelia turtur)*.

27th APRIL 35°15′N. 15°25′E. South of Sicily.
4 Turtle Doves.

2nd MAY and 5th MAY. South of Sicily.
2 Yellow Wagtails, 1 Turtle Dove, 12 - 18 Swallows.

Lieutenant W. P. Crone, R.N.R. H.M.S. Dalrymple. U.K. to Persian Gulf.

21st SEPTEMBER. South of Almeria (Spain).
1 Black Wheatear *(Oenanthe leucura)* d. S.W.
1 Swallow *(Hirundo rustica)* d. S.W.

22nd SEPTEMBER 37°35′N. 7°47′E. South of Sardinia.
1 Nightingale.

27th - 29th SEPTEMBER. Eastwards through Mediterranean.
Swallows and Sand Martins flying southwards.

Fifth Engineer J. O. Brinkley, s.s. Hinea. Aden to Holland.

11th OCTOBER 33°15′N. 27°45′E.
6 White Wagtails *(Motacilla. a. alba)*, 3 Turtle Doves.
3 House Sparrows *(Passer domesticus)*.

14th OCTOBER 37°15′N. 7°30′E. S.W. of Sardinia.
2 Swallows *(Hirundo rustica)*, 2 House Sparrows.

Third Officer M. E. Jones, s.s. Malakand. London to Port Said.

29th OCTOBER 36°17′N. 02°15′E. North of Oran.
1 Kestrel *(Falco tinnunculus)* d. S.

30th OCTOBER 37°N. 04°50′E. North of Algiers.
1 Kestrel *(Falco tinnunculus)* d. S.
2 Robins *(Enithacus rubecula)*.
1 Black Redstart *(Phoenicurus ochruros)*.

31st OCTOBER 37°N. 11°45′E.
1 Whinchat *(Saxicola rubetra)* d. S.E.
1 Starling *(Sturnus vulgaris)*.
1 Kestrel *(Falco tinnunculus)* d. S.

1st NOVEMBER 35°18′N. 17°11′E. Mid Mediterranean.
1 Whinchat *(Saxicola rubetra)* onboard all day.

1960

MEDITERRANEAN SEA

Third Officer M. E. Jones. s.s. Malakand. London to Port Said.

2nd NOVEMBER 33°34′N. 24°28′E.
1 Redstart *(Phoenicurus phoenicurus)* on board all day.

3rd NOVEMBER 32°N. 30°30′E.. Off Alexandria.
4 Song Thrushes *(Tudus ericetorum)*. One rested onboard.
6 Chiffchaffs *(Phylloscopus collybita)* onboard during day.
1 Lesser Whitethroat *(Sylvia curruca)*.
1 Bluethroat *(Cyanosylvia svecica)*.

1961

MEDITERRANEAN SEA

A. Semple. s.s. Port Nelson.

25th MARCH 38°56′N. 14°30′E. North of Sicily.
3 Lesser Kestrels *(Falco naumanni)*.
2 Wheatears *(Oenanthe oenanthe)*.
1 Swallow *(Hirundo rustica)*, 1 House Martin *(Delichon urbica)*.

Second Officer J. H. Agnew, s.s. Lincoln. U.K. to Persian Gulf.

28th MARCH 35°54′N. 21°05′E. West of Crete.
4 Swallows *(Hirundo rustica)* onboard for 24 hours; very tired.

Capt. P. P. O. Harrison, s.s. Kent. U.K. to Syria and return.

12th APRIL 37°N. 0°16′W. North of Oran.
6 Swallows *(Hirundo rustica)* d. N.

14th APRIL 36°N. 15°20′E. 50′ S.E. of Malta.
6 Night Herons *(Nycticorax nycticorax)* d. N.

15th APRIL 34°15′N. 22°30′E. North of Cyrenaica.
3 Turtle Doves *(Streptopelia turtur)*.
1 Kestrel *(Falco tinnunculus)*.

16th APRIL 32°16′N. 30°15′E. North of Rosetta Mouth (Egypt).
Several Blue-headed Wagtails *(Motacilla. f. flava)*.

6th MAY 34°10′N. 34°51′E. Off coast of Lebanon.
5 Turtle Doves *(Streptopelia turtur)*.
1 Turnstone *(Arenaria interpres)*.

7th MAY 35°45′N. 32°22′E. Between Cyprus and Crete.
Many Blackcaps *(Sylvia atricapilla)* and Turtle Doves *(Streptopelia turtur)* d. N.E.

8th MAY 36°N. 21°E. South of Cape Matapan.
Several Turtle Doves around ship.

9th MAY 36°27′N. 15°30.E. 20 miles S.E. of Sicily.
8 Herons (probably Purple Herons) d. N.N.E.

11th MAY North of Oran.
12 plus Swallows *(Hirundo rustica)* d. N.

12th MAY 36°48′N. 8°22′W.
4 Swallows *(Hirundo rustica)* d. N.E.

Note: A report from Central Mediterranean area from Lieutenant M. B. Casement, R.N., covering April/May received too late for inclusion in detail. Interesting records however include:—

18th APRIL 37°26′N. 10°50′E.
1 Pallid Harrier *(Circus macrourus)* d. N.N.E.

22nd APRIL Off Malta.
1 Pallid Swift *(Apus palidus)*. Photographed onboard.

1960

RED SEA

Third Officer M. E. Jones, s.s. Malakand.

4th APRIL 27°07′N. 34°19′E. North end of Red Sea.
1 Redstart *(P. phoenicurus)* onboard, 5 Black Kites *(M. milvus)* d. N.
1 Swallow and 1 White Wagtail.

5th APRIL 22°24′N. 37°27′E. Off Jidda.
2 Blue-headed Wagtails *(Motacilla. f. flava)* d. N.W.
1 Cattle Egret *(Ardeola ibis)* d. E.
1 Hoopoe *(Upupa epops)*, Swallows *(Hirundo rustica)* d. N.

Capt. A. J. F. Colquhoun, s.s. Elysia.

11th JUNE 22°20′N. 37°20′E. Off Jidda.
1 Peregrine Falcon *(Falco peregrinus)* onboard for 36 hours. Frequently caught locusts. 2 Swallows also onboard.

Cadet P. H. King, s.s. British Gunner.

5th JULY 12°35′N. 43°24′E. Off Perim Island, Southern Red Sea.
Falcon flying round ship for several hours. Captured and fed off a Collared Turtle Dove and attacked Wilson's Petrels in the wake astern. It landed on deck, allowed close approach; detailed notes made and 3 photographs taken. Quoted as a possible Eleanoras Falcon *(Falco eleonora)* but probably the small peregrine species *(Falco peregrinus pelegrinoides)*.

Second Officer J. H. Agnew, M.V. Gloucester.

29th SEPTEMBER 12°26′N. 48°44′E. Central Gulf of Aden.
1 Curlew Sandpiper *(Calidris testacea)*. Photographs and measurements taken.

Lieutenant W. P. Crone, R.N.R. H.M.S. Dalrymple. U.K. to Persian Gulf.

2nd OCTOBER 25°N. 36°E. North end of Red Sea.
1 Great White Heron *(Egretta alba)* d. N.W.
1 Swallow *(Hirundo rustica)* d. W.

3rd OCTOBER 20°32′N. 38°E. Central Red Sea.
24 plus Swallows *(Hirundo rustica)* d. W. 6 plus Sand Martins *(Riparia riparia)*, 4 Bee Eaters *(Merops apiaster)*.

4th OCTOBER 18°05′N. 39°40′E. Central Red Sea.
Swallows and Sand Martins passing W.
1 Kestrel *(Falco tunnunculus)*, 1 Grey Wagtail *(Motacilla cinerea)* d. W. 1 Turtle Dove *(Streptopelia turtur)* d. W.

Capt. G. E. Hodgson, s.s. British Engineer.

4th OCTOBER—
Several Bee Eaters *(Merops apiaster)*, 1 Kestrel *(F. tunnunculus)* ringed No. E.2930.

31st OCTOBER 22°37′N. 37°12′E. Mid Red Sea.
1 Bee Eater ringed No. 1695, 1 Kestrel ringed No. E.2758.

Fifth Engineer J. O. Brinkley, s.s. Hinea. Aden to Holland.

6th OCTOBER 16°45′N. 41°30′E.
1 Yellow Wagtail *(Motacilla flava)*, 1 Grey Wagtail *(Motacilla cinera)* d. S. 1 Turtle Dove *(Streptopelia turtua)* d. W.

Third Officer M. E. Jones, s.s. Malakand. Suez to Aden.

6th NOVEMBER 25°43′N. 35°10′E.
2 Isabelline Warblers *(Oenanthe isabellina)* onboard all day.
2 Redstarts *(Phoenicurus phoenicurus)* onboard all day.
2 Bluethroats *(Cyanosylvia svecica)*.
1 White Wagtail *(Motacilla alba)* (sp).
4 Chiffchaffs *(Phylloscopus)* (sp).

10th NOVEMBER at Assab.
1 Sakkar Falcon *(Falco cherrug)*. Perched onboard with a Little Tern in its talons—very aggressive.

11th NOVEMBER 12°30′N. 43°17′E. Off Assab.
1 Rough Legged Buzzard *(Buteo lagopus)*.
1 Swallow *(Hirundo rustica)*.

13th NOVEMBER. Berbera Harbour.
2 Blue-cheeked Bee Eaters *(Merops superciliosus)*.

14th NOVEMBER
12 Blue-cheeked Bee Eaters—one bird caught and ringed N.I.O. A251.

1961

RED SEA

A. Semple, s.s. Port Nelson.

19th MARCH 16°28′N. 41°10′E. Southern Red Sea.
1 Chiffchaff *(Phylloscopus collybita)*, 2 Hoopoes. Chiffchaff died onboard and was identified.

Capt. P. P. O. Harrison, s.s. Kent. U.K. to Persian Gulf.

19th APRIL 23°40′N. 36°38′E. Central Red Sea.
5 Turtle Doves *(Streptopelia turtur)*, 2 Yellow Wagtails *(Motacilla flava)*.

Capt. W. L. N. Fisken, s.s. British Signal.

21st APRIL 16°25′N. 41°14′E.
40 to 50 Red Kites *(Milvus milvus)* settled on the ship spending the night onboard.

Capt. P. P. O. Harrison, s.s. Kent. Persian Gulf to U.K.

1st to 4th MAY Northward passage of Red Sea.
Swifts, Turtle Doves, Yellow Wagtails and one Peregrine Falcon onboard.

4th MAY 27°13′N. 34°12′E. Strait of Gubal.
Over 100 large Hawks (probably Kites) sighted strung out to seawards.

Capt. R. P. de R. Openskaw. Suez to Persian Gulf.

11th MAY 27°48′N. 33°45′E. Strait of Gubal.
"Thousands" of quote: "Sparrow Hawks" (sp) passed over ship at heights of between 20 and 150 feet, regardless of ships structure, flying steadily N.E.

1960

ARABIAN SEA

Fifth Engineer J. O. Brinkley, s.s. Hinea. Phillipines to Aden.

4th OCTOBER 13°N. 50°E. East of Aden Protectorate.
1 Isabelline Wheatear *(Oenanthe isabellina)*.
1 Hoopoe *(Upupa epops)*. 1 Turtle Dove *(Streptopelia turtur)*.

Lieutenant W. P. Crone, R.N.R. H.M.S. Dalrymple.

11th & 12th OCTOBER 22°N. 59°30′E. Off Coast of Oman.
5 Egyptian Nightjars. Four onboard, one caught in butterfly net!

Third Officer M. E. Jones,s.s. Malakand. Aden to Trincomalee.

21st NOVEMBER 11°33′N. 52°32′E. Off Socotra.
1 Blue-cheeked Bee Eater *(Merops supercilioris)* onboard all day.

22nd NOVEMBER 10°45′N. 58°38′E.
1 Merlin *(Falco columbarius)*. Identified onboard.

23rd NOVEMBER 09°45′N. 64°E.
3 Blue-cheeked Bee Eater *(Merops superciliosis)*. d. S.

24th NOVEMBER 08°45′N. 69°33′E.
1 White Wagtail *(Motacilla alba)* (sp).

1961

ARABIAN SEA

Second Officer J. H. Agnew, s.s. Lincoln. Persian Gulf to U.K.

12th APRIL Gulf of Oman.
1 Blackcap onboard.

16th APRIL 14°37′N. 50°16′E. Off Mukalla.
1 Nightjar *(Caprimulgus)* (sp) onboard.

17th APRIL Off Aden.
1 Hoopoe *(Upupa epops)* onboard.

Capt. P. P. O. Harrison, s.s. Kent. Persian Gulf to U.K.

1st MAY Off Aden.
1 Blue-cheeked Bee Eater *(Blepharomerops persicus)* onboard.

1960

PERSIAN GULF

Nil.

1961

PERSIAN GULF

Second Officer J. H. Agnew, s.s. Lincoln. Persian Gulf to U.K.

11th APRIL 29°12′N. 49°52′E. Head of Persian Gulf.
About 20 Yellow Wagtails *(Motacilla flava)* onboard catching flies.
1 Shrike (sp) onboard. Killed a Wagtail.

12th APRIL Straits of Hormuz.
1 Blackcap.

Capt. P. P. O. Harrison, s.s. Kent.

26th APRIL Head of Persian Gulf.
6 Yellow Wagtails *(Motacilla flava)* onboard.

Lieutenant M. B. Casement, R.N. H.M.S. Centaur.

1st to 4th AUGUST Off Kuwait.
Hoopoes *(Upupa epops)* at intervals.

13th AUGUST Off Kuwait.
1 Yellow Wagtail *(Motacilla flava)*.

14th AUGUST Off Kuwait.
1 Bee Eater (sp).

15th AUGUST Central P.G.
1 Roller *(coracias garrulus)*.
1 White Wagtail *(Motacilla alba)*.

1960

PHILLIPINE SEA

Fifth Engineer J. O. Brinkley, s.s. Hinea.

16th AUGUST 21°N. 124°E. Between Luzon and Formosa.
1 Grey Wagtail *(Motacilla cinerea)*, ringed N.I.O. A.452.
1 Common Sandpiper *(Tringa hypolencos)*, ringed N.I.O. A.453.

27th AUGUST 16°N. 128°E. 600′E. Off Luzon.
5 Swallows *(Hirundo rustica)*.

7th SEPTEMBER 17°N. 117°E. South China Sea.
2 Swallows, 1 Yellow Wagtail.

13th SEPTEMBER 7°N. 118°E. Sulu Sea.
1 Arctic Warbler *(Phylloscopus borealis)* onboard.

RANDOM REPORTS

One of the delights in receiving the envelopes bearing the stamps of many foreign countries in which sea report sheets from members arrive is the anticipation that some quite unexpected and even dramatic event in bird life may be enclosed. One is rarely disappointed. Unique or amusing things happen in the life of the birdwatching seafarer, when birds and ships come together.

Who would have expected birds to roost in an officer's hair while he was busily engaged in the "Ops Rooms" of one of H.M. ships? The story goes back to 1959 but has only just come to hand:—

ENGLISH CHANNEL, 1959

While the ship in which Lieutenant A. C. Currey, R.N., was serving was operating in the Channel on 10th October, 1959, between Portland and Portsmouth, wind S.W. force 5 following gale force winds, about a dozen Firecrests were driven on board. The poor bedraggled little birds were barely recognizable, but Currey believes they were Firecrests as opposed to Goldcrests. Be that as it may steps were taken on the bridge to capture and usher them into the warmth of the Ops Room where Currey was working. Imagine his astonishment when one of these tiny birds flew to his head and immediately burrowed into his hair.

This occurred several times, each visit lasting about 2½ minutes. Currey describes this as a fascinating experience! Meantime others tunnelled inside rolled up charts for shelter. Later when a search was made all had disappeared, and it can only be hoped that they reached land safely.

It was at this time too that a Golden Plover came on board and was kept in safety until the ship reached Portsmouth when Currey invited our Hon. Secretary to inspect it.

The Family "Sulidae" never fails to bring a light touch into our notes, and I hope that we shall continue to hear more of these sagacious birds!

J. H. Agnew reporting in the vicinity of the Fiji Isands includes this tit-bit in his sea reports:—

"Brown Boobies were following the ship right through the night, fishing in the bright moonlight. One was incautious enough to fly low over the forecastle head when the lookout leapt in the air and captured it. Tucking the indignant bird under his arm like a rugger ball he continued his watch, later bringing it up to the bridge for identification."

Red-footed Boobies have been in the news too. N. G. Cheshire tells of three Red-footed Boobies which accommodated themselves on the fore-stay with the ship at sea off the east coast of Africa. After a whole day in residence the Chief Officer, with an eye to the cleanliness of his fore deck, decided that they must be dislodged and despatched Cheshire and another apprentice to do the job. By this time the three birds were on the fore and aft radio aerial, but no matter how much this was shaken they returned persistently, making a great deal of noise. Efforts continued until darkness fell when victory was conceded to the unwelcome visitors.

The boobies spent most of their time catching flying fish as they flipped away from the bow wave. In this the birds were only partially successful due to their own stupidity, for when one booby captured a fish another bird would swoop down and knock it out of its partner's beak.

BIRD IN THE BILGES

When Captain W. N. H. Jarvis's ship, s.s. Regent Springbok was in mid North Atlantic, 25°39'N. 48°50'W. he was brought a White-tailed Tropic Bird which had been discovered in the engine room bilges in an exhausted condition. I must say that its arrival in the bilges seemed to me to be one of those little mysteries, but a further letter from Jarvis disclosed that it can only have arrived in this unhappy position by being swept through a large six-foot diameter upper deck ventilation cowl. It recovered sufficiently to gobble down some corned beef and cheese, but disgorged this unusual meal on being handled later.

Captain Jarvis cleaned the bird thoroughly with soap and water, and prepared a very excellent report of its examination in the hand. The tale ends with the tropic bird eating a square meal of raw haddock and being launched into space none the worse.

RED RINGED ALBATROSS

Following the banding programme being carried out by the New South Wales Albatross Study Group the first report from sea was received from Captain J. D. Bennett, M.V. "Otaki," New Zealand Shipping Company. On 13th May, 1960, in 35°18'S., 119°48'E., off the south west coast of Australia, an albatross was sighted with a red band on its left leg.

UNUSUAL SIGHTINGS

HUMBER—LITTLE AUK

1st April, 1961. Captain W. N. H. Jarvis, s.s. Regent Springbok, identified a Little Auk *(Plautus alle)* swimming amongst a flock of Lesser Black-backed Gulls.

FIRTH OF CLYDE - NORTH ATLANTIC—CORY'S SHEARWATER

21st June, 1961. Captain P. J. S. Smith, Royal Marines, whilst on board H.M.S. Lowestoft doing trials between Arran and the Cumbraes obtained an excellent view of a large Shearwater which can have been none other than Procellaria diomedea. The bird passed within 30 yards of the bridge in excellent visibility and was observed closely through power 8 binoculars out to 400 yards. From above its plumage was an almost uniform purplish brown, the crown seen to have no darker "cap" or appearance. It showed no white about its upper tail coverts. At about 75 yards it turned to show its whitish underparts and half collar. Smith noticed that this half collar had no clearly defined edges, and whilst it extended upwards it did not meet at the nape.

The flight was a series of long glides low over the water with occasional slow wing beats.

Captain Smith has confirmed this close up identification after studying separate close up photographs of this species from the R.N.B.W.S. library.

It is believed that this may be a rare record of *P. diomedea* so far north around the British Isles (55°45'N., 5°W.).

James Fisher, in his book "Sea Birds" quotes the only Scottish record as one seen at sea close to Aberdeen on 10th September, 1947, by R. N. Winnall *(Sea-Birds* p.26).

FIRTH OF CLYDE—ICELAND GULL

11th January, 1961. While Apprentice Brackenbridge was crossing in the ferry between Dunoon and Gournock he identified an Iceland Gull *(Larus Glancoides)* in adult plumage from amongst Herring Gulls feeding on the gash being thrown overboard. It stood out from the other gulls, being described in his report as "White from head to tail" and too small to be confused with a Glaucous Gull *(Larus Hyperboreas)*.

NORTH ATLANTIC—AMERICAN PURPLE GALLINULE

Two reports have been received of this bird off the beaten track. The first comes from Third Officer M. E. Jones and records a Purple Gallinule *(Porphyrula martinica)* on board for a few minutes on 8th April, 1961, several miles off Flores in the Azores.

The second comes from Captain W. A. Kennedy, R.M.S. Tuscany, Royal Mail Line. This bird came on board on 6th July, 1961, in19°11'N., 84°08'W., 150 miles from the nearest land. Captain Kennedy forwarded a complete report and sketch of the bird examined in the hand.

RED SEA—RED KITES AND SPARROW HAWKS

21st April, 1961. Chief Officer W. L. N. Fisken, S.S. British Signal. When British Signal was proceeding down the Red Sea in position 19°34'N., 39°25'E. with Port Sudan abeam, about fifty Red Kites settled on the ship, spending the night crowded along the Triatic Stay. All next day the kites remained around the ship as it steamed south, and by late afternoon were back at their old roost. The wind was southerly at the time but veered and freshened from a northerly quarter. As dusk fell on the second evening some of the kites left but more than a dozen remained overnight. At daybreak on 23rd April the birds had departed, the last of them being sighted when Deadalus Rock Lighthouse bore 298°, 17½ miles.

Sparrow Hawks were clearly migrating at this season for Fisken had three on board, but on 11th May, 1961, Captain R. P. de R. Openshaw, M.V. Oakwood, sent this remarkable report:

"When passing Ashrafi Island, Strait of Gubal, 27°48'N., 33°45'E., at 1100 hours, wind N.W. force 2, thousands of sparrow hawks in a belt about 2 miles wide passed over (and through) the ship from the Egyptian coast on a north easterly course. The birds were flying at from 20 to 150 feet above sea level in no set formation but all on the same course. They took no notice of the ship, some flying under the main radio aerials. I have stated that there were thousands, many thousands, perhaps, for they extended to the east as far as the eye could see, and were still coming up from the west as the ship proceeded.

Note by Editor—The report did not quote positive identification of *(Accipiter nisus)* and these may have been *(Accipiter sp.)*.

Captain P. P. O. Harrison, S.S. Kent, witnessed a similar but much smaller migration on 4th May, 1961, at the northern end of the Red Sea, which were probably kites and numbered about 100.

It seems surprising that all these hawks of one species should congregate together before migrating. They are not naturally gregarious and need territory for feeding. One would have expected them to "proceed independently."

GREAT BLACK-BACKED GULLS CROSSING NORTH ATLANTIC

Chief Officer T. B. Scott reports that during a passage from St. John, New Brunswick, to England in March, 1961, three Great Black-backed Gulls (2 adult and one immature) followed his ship all the way across the Atlantic.

This is not the first occasion that these birds have been noted to follow the ship throughout the entire crossing.

EAST OF ADEN—THE PATTERN OF THE SEA. WILSON'S STORM PETRELS

When sea birds congregate in their thousands over a small area of the ocean one can be certain that food is in abundance. During a passage between Aden and Persian Gulf in July, 1961, during the period of the S.W. Monsoon, Captain P. P. O. Harrison's notes in his sea report sheets reveal an unusual upwelling of plankton. One sees such remarks as "The sea is a dark green," "Very strong fishy smell from the sea," "Much yellow scum on the surface," and indeed Captain Harrison was kind enough to send a sample of this delicious brew to Dr. W. R. P. Bourne.

A hundred miles east of Aden on 28th July a great flock of Wilson's Storm-Petrels was encountered, and the notes accompanying this report read as follows: —"Weather calm. Numerous small pale mauve jelly fish of three types on all sides, circular, spiral and mushroom shaped with tentacles. Plankton or scum visible in water. Sharks and porpoises are showing up and flying fish are breaking surface. "Bass" type fish, and about a dozen Manta Rays are with us. Here on the edge of a tidal mark containing seaweed and many dead locusts over a thousand Wilson's Storm-Petrels are pattering on the surface."

RED-BILLED TROPIC BIRDS. ONE YEAR'S OBSERVATIONS IN THE ARABIAN SEA

Captain J. S. Landers (M.V. El Nasser) has been running, as he says "Ad nauseum" between Galle (Ceylon), Basra, Karachi and Colombo between August, 1960, and August, 1961, and has sent us one year's observations of the Red-billed Tropic Bird for each month of the year.

The details of this report will be retained at the plot. At 22°N., 68°E., a fair average, the sea water temperature was never below 80°F. and rose from 80° to 90° in the summer months (summer average 85°F.).

A traveller on this route might expect to see small parties of one to three tropic birds on odd days in every month of the year, but it is clear from this report that one would be unlikely to see them west of 60°E., and the majority of the sightings north of 17°N. were east of 62°E., and between 7°N. and 17°N. were east of 70°E.

EXTRACTS FROM AN INTERESTING VOYAGE

A most interesting narrative has been received from Third Officer M. E. Jones, S.S. Malakand, of a voyage during 1960/61 from U.K. to India via Mediterranean and a return voyage to the U.S.A. and thence back to the U.K.

Space does not permit of publication in this issue, but who could not be interested in the following extracts:

"Concentration of Terns

Whilst leaving Assab (Red Sea) at dawn on 11th November, 1960, a huge concentration of terns was seen making its way towards a large shoal of fish two miles out from harbour. A very conservative estimate gave about seventy-five thousand birds, but there were probably well over a hundred thousand. The flock, if it could be called that, was mixed and appeared to be largely made up of Lesser and Greater Crested Terns, White-cheeked Terns and several hundred Little Terns.

Gannets off Port Said

Leaving Port Said early in February, 1961, I was pleased to see twenty Gannets no more than five miles from the harbour. All but one were adults, the young one being a first winter bird.

Skuas off Coast of Florida

During a day's passage southwards on 6th March, 1961, along the Eastern Florida Coast Skuas were in pursuit of the vessel all day. From a maximum count of about one hundred birds following at a particular instant off Miami Beach, only three birds were Arctic Skuas, the remainder being Pomarines.

Phalaropes and Great Northern Divers in the Gulf of Mexico

A few days later (10th March) many Phalaropes were seen when crossing between Panama City, Pensacola and Tampa. At the entrance to Pensacola Bay a thousand or more were present. Not all, of course, were identified but those that were proved to be Grey Phalaropes.

It was in Pensacola and St. Andrew's Bays that the "Loons" (Great Northern Divers) really showed up in numbers. In Pensacola Bay one flock consisted of five hundred birds or more. They showed little fear on close approach of the vessel, seldom diving, and it was a memorable sight to look down over the ship's side on a group of about twenty birds, all by then in their beautiful summer plumage. The wailing calls at night were a weird experience."

DOWN SOUTH AMERICA WAY

EXTRACTS FROM THE REPORTS OF H.M.S. PROTECTOR, 1960

Note by Editor—During November, 1960, H.M.S. Protector cruised down the west coast of South America from Panama to the Straits of Magellan, thence to the Falkland Islands and South Georgia. The sea report sheets covering this voyage, prepared under the supervision of Lieut. David Springall, R.N., and Lieut. Roger Morris, R.N., give many interesting glimpses of the coastal sea bird life which would normally not come to the notice of members. I have felt that some extracts in narrative form are worthy of a special place in this year's report. No attempt has been made to list all the individual sightings quoted in the report. The scientific title is given on the first occasion only.

LEAVING PANAMA

H.M.S. Protector left Panama on 28th October and soon seventeen Brown Boobies *(Sula leucogaster)* were in close company with the ship, diving for fish sometimes close under the forefoot. Two distinct types of dive were noticed, one the near vertical Gannet plunge, the other the almost horizontal "Racing dive" into the face of a wave, the bird only half closing its wings at the last moment. Some birds took flying fish on the wing. It was interesting that the boobies easily overtook the ship with a relative wind speed of 30 knots from ahead showing on the anemometer.

ARRIVAL AT GUAYAQUIL (EQUADOR)

On 31st October, Protector entered the Gulf of Guayaquil to be greeted by Southern Black-backed Gulls *(Larus dominicanus)* half a dozen Bonaparte's Gulls *(Larus philadelphia)*, Chilean Pelicans *(Pelecanus thagus)*, Red-footed Boobies *(Sula sula)* and some Royal Terns *(Thallasseus maximus)*. At the outer end of the Guayas River bar the Bonaparte Gulls had increased, Bigua Cormorants *(Phalacrocorax olivaceus)* were seen and up to fifteen Great Frigate-Birds *(Fregata minor)*, closed the ship. Some were young birds with white heads and bellies, but all showed the brown bar on the wing. Three miles south of Guayaquil thirty Chilean Pelicans were giving a diving display. They hit the water with a mighty splash but never submerged further than head and shoulders, turning to face the opposite direction as they surfaced.

GUAYAQUIL TO CALLAO (PERU)

On the 4th November, Protector was in 11° South, twenty-five miles off the coast, and passed six large dark grey birds with white heads, and wings as wide as pelicans, which rose awkwardly from the sea with much flapping along the surface. It was soon clear that these were Waved Albatrosses *(Diomedea irrorata)*. At the same time groups of Sooty Shearwaters *(Puffinus griseus)*, entirely dark Shearwaters with paler under wing linings, were continually passing in parties of up to twenty, flying purposefully towards the Peruvian coast.

SIMEON GULLS AND YOUNG GREY GULLS—MOLLENDO, PERU

In the half hour before sunset large numbers of phalaropes were encountered, in all there must have been between 500 and 1,000 birds, flying swiftly to the South East in groups of twenty to thirty birds, formed in solid V formations, always with one leg of the V longer than the other. There is little doubt that these were either Northern Red-Necked or Grey Phalaropes for they are described as "birds about the size of the common sandpiper, grey above, white below, with a white rear edge to their wings. Their heads were pale, and in some cases a black streak appeared through the eye."

CALLAO TO MOLLENDO (SOUTH PERU)

Members will recall Captain Mitchell's colourful report in the *Sea Swallow*, 1960, on the long lines of Guano Birds passing to and from their feeding grounds where shoals of Anchovies abound. Here then is what Protector saw:—"vast rivers of Guanay Cormorants *(Phalacrocorax bougainvillei)* streaming across the surface of the sea, large almost goose-like birds, dark above and white below, many but not all showing red at the base of the bill or on the face. One group of upwards of 200 birds stopped over a shoal of fish, plunging down and overwhelming a large (by any other standard) assembly of terns. A few pelicans and some Franklin's Gulls *(Larus pipixcan)* disappeared in a mélée."

Once again flocks of Sooty Shearwaters were quartering the sea.

MOLLENDO HARBOUR, 10th TO 12TH NOVEMBER

Protector anchored ½ mile offshore. The commonest bird around the ship was the Grey Gull *(Larus modestus)*, a flock of forty to fifty hanging around the stern. Most of these were immatures, their heads and breasts the lovely lavender grey of the adults, but with less white on the forehead and with their wings a nondescript blackish brown—a typical immature gull colour. Amongst this gathering were ten to fifteen Franklin's Gulls and lastly a few Siméon Gulls *(Larus belcheri)*.

Perched on lighters moored between ship and shore were about 150 Grey Gulls, a few of the other two varieties and 100 or more Inca Terns *(Larosterna inca)*. On groups of rocks inshore, their presence shown by the snow white caps of guano, were large flocks of Guanay and Red-legged Cormorants *(Phalacrocorax gainardi)*.

MOLLENDO TO ANTOFAGASTA (CHILE)

Leaving Mollendo on 12th November, in 17½°S., 72°W., Sooty Shearwaters, Chilean Terns, Inca Terns, a Sabine's Gull *(Xema sabenei)* and three phalaropes were sighted, and later that day a Sooty Storm-Petrel *(Oceanodroma markhanii)* and a Wilson's Phalarope *(Steganopus tricolor)*. The Sooty Storm Petrel, which gave an excellent close-up view under the bridge was reported as having "an uneven rather tern-like flight." The Wilson's Phalarope conveniently flew onboard and was examined in the hand. This had "A long dark bill slightly flattened; forehead and neck white; rear of crown blackish; streak through eye black joining crown by a dark grey streak above and behind the eye. It had no white wing bar."

On 13th and 14th November, in 20° to 23°S., more Sooty Storm-Petrels were seen, one flying onboard permitting examination in the hand.

ANTOFAGASTA HARBOUR, 14TH TO 17TH NOVEMBER

The harbour is enclosed by two moles, the north mole which juts out from the shore to the westward, and the west mole which runs north and south and encloses the harbour at its southern end. Entrance is on the north between the tips of the north and west moles.

On a patch a low flat rocks just north of the harbour itself there was a large colony of 100 to 200 Chilean Pelicans. At high tide the area above water was packed tight with these birds, some of which could be seen diving for fish in the bay at all times of the day.

The most common bird on the west mole, and probably in Antofagasta altogether was the tern described as the Arctic Tern *(Sterna paradisea)*. The detailed description is certainly identical with that of this species. Two hundred to three hundred of them occupied the west mole. Mingling with them were forty to fifty Grey Gulls in adult plumage. Several lighters were moored off the mole on the harbour side and fifty to sixty birds rested on each in two quite separate groups. About half were Inca Terns, the other half the Arctic Terns. Overhead, not landing or mixing with the Grey Gulls, a few Siméon Gulls and Franklin's Gulls passed from time to time, coming from a gull colony near the root of the north mole. This colony held up to three hundred mixed Grey, Siméon and Franklin's Gulls.

From the west mole two or three Sooty Shearwaters could be seen flying backwards and forwards across the sea, and to seaward too were four or five small birds, very much like Little Auks, which have been quoted with "misgiving" as Diving Petrels *(Pelecanoides magellani)*.

ANTOFAGASTA TO TALCAHUANO (CHILE)

Protector left Antofagasta on 17th November and identified more phalaropes, this time Northern Red-necked and Grey, during the day. In fact, throughout the afternoon groups of ten to fifteen were passing every twenty minutes.

Now the ship was approaching 30°S. and Pintado Petrels *(Daption capensis)*, White-chinned Petrels *(Procellaria aequinoctialis)*, Black-browed Albatrosses *(Diomedea melanophris)*, Schlegel's Petrels *(Pterodroma incerta)* and Silver Grey Petrels *(Fulmaris glacialiodes)* begin to appear in the report.

On 19th November one hundred phalaropes, definitely not Wilson's, were passed in 34°15'S., 72°18'W.

Protector stopped off the entrance to Conception Bay, 36½°S., where a bird count recorded Guanay, Bigua and Red-legged Cormorants, Southern Black-backed Gulls *(Larus dominicanus)*, Siméon and Franklin's Gulls, Sooty Shearwaters, Schlegel's Petrels and Cape Hens (White-chinned Petrels).

TALCAHUANO TO MAGELLAN STRAITS

From Talcahuano southwards, Wandering and Black-browed Albatrosses, a variety of shearwaters, (1,000 plus Sooties), and petrels were evidently constantly in sight and 250 phalaropes were counted. One example is quoted: —

24th November, 47°59'S., 73°54'N. Counted in ten minutes: Eight Wanderers, four Black-browed Mollymawks, four Cape Pigeons, six Cape Hens, four Silver Grey Petrels, three Black-bellied Storm Petrels *(Fregatta tropica)* and four Wilson's Storm Petrels *(Oceanites oceanicus)*. Almost all were following the ship.

PASSAGE OF MAGELLAN STRAITS

Bird counts were made on 29th and 30th November and a wealth of different species seen. Most have already been quoted but the Giant Petrel or Stinker *(Macronectes giganteus)*, Magellan Penguins *(Sphenicus magellanicus)*, Blue-eyed Cormorant *(Phalacrocorax atricepo)*, the South America Tern *(Sterna hirundinacea)* and Prions *(Pachyptila Sp)* appeared for the first time.

THE FALKLAND ISLANDS

From the Straits of Magellan Protector shaped course for the Falkland Islands, and bird counts were made off the islands on 1st and 6th December. These recorded numerous Blue-eyed Cormorants (200 to 500), Black-browed Mollymawks (up to thirty), Stinkers (up to twenty), Light-mantled Sooty Albatross *(Phoebetria Palbebrata)*, Prions, Magellan Penguins, Sooties, Cape Pigeons, Wilson's Storm-Petrels, and one Greater Shearwater *(Procellaria gravis)*.

And here we must leave H.M.S. Protector with renewed thanks to the Commanding Officer, Birdwatching Officer and all concerned in maintaining such interesting and valuable records. Their work is continuing in 1961; at the time of preparing these notes I had a letter from Lieut. Springall describing how he flew the ship's helicopter from Punta Arenas (Chile) to Magdelena Island in the Magellan Straits with Colin Sellick of the Wildfowl Trust as passenger, to photograph a colony of Magellan Penguins.

NOTES ON THE DISTRIBUTION OF THE FULMAR IN THE NORTHWEST ATLANTIC

By E. I. S. Rees, Fisheries Research Board of Canada Biological Station, St. John's, Newfoundland.

In his monograph on the fulmar *(Fulmarus glacialis)* Fisher (1952) has described and illustrated the seasonal distribution of this species in the North Atlantic. Discussing the distribution during the months of November and December (p. 304) he was of the opinion that "all records west of 55°W. are probably accidentals." A number of observations to the west of this limit are recorded here.

During November, 1959, and November, 1960, I made two voyages on the *A. T. Cameron*, a research trawler of the Fisheries Research Board of Canada. On the 1959 cruise the ship worked in the Nova Scotian banks area and in 1960 in the Gulf of St. Lawrence. Figure 1 shows the positions at which fulmars were noted on these voyages together with positions at which fishing operations failed to attract fulmars.

On the Nova Scotian banks (Nov. 7 - 28, 1959) fulmars were seen at all except three of the fishing stations on a line running S.S.E. from Halifax to the edge of the continental shelf. The numbers present were always small, varying from one to six. No fulmars were seen at a similar but more westerly line of fishing stations off Cape Sable. These few records would seem to indicate that at that time the westerly limit of distribution was in the region of 64°W. All the records were of light phase birds with the exception of a single dark phase bird seen to the west of Sable Island on November 27.

In the Gulf of St. Lawrence (Nov. 7 - Dec. 3, 1960) fulmars appeared at nearly all fishing stations. The number present at one time was usually less than ten, except at the line of stations across the Cabot Strait, where the number varied from fifteen to fifty. This trend would seem to indicate that more fulmars enter the Gulf of St. Lawrence through the wider southern entrance than by the narrow Strait of Belle Isle. Dark phase birds made up ten to fifteen per centage of the Gulf population. The only group of stations where no fulmars were seen was off the Gaspé Peninsula, but this might have been due to the exceptionally calm windless conditions, with poor visibility, on the day during which the area was fished. The research vessel cruise was carried out after the end of the regular commercial fishing season, the main trawling seasons being February to April for cod, if ice conditions permit, and June to October for redfish. It is reasonable to suggest that more fulmars should be present during the fishing seasons, subject, of course, to the July and August northwards departure. In this connection it is of interest to note that Drury and Drury (1959) saw a flock of about two hundred off the Gaspé Peninsula in June, 1956.

While the Gulf of St. Lawrence can certainly be included in the fulmar's range for the month of November, the position of the southwestern limit remains doubtful. A sparse population on the Nova Scotian banks could account for the accidental records from the New England coast, but a few might regularly occur on George's Bank. This point can best be solved by observations from trawlers working in this area.

A possible reason why these findings disagree with those of Fisher (1952) is that the observations available to him were mainly from

liner transects; a trawler discarding quantities of potential food will be more attractive to fulmars and so give a more reliable guide at low population densities. In addition there has been a great increase in the number of trawlers fishing in the Northwest Atlantic during the last fifteen years. This together with the known expansion of the European breeding population may have caused a slight change of status.

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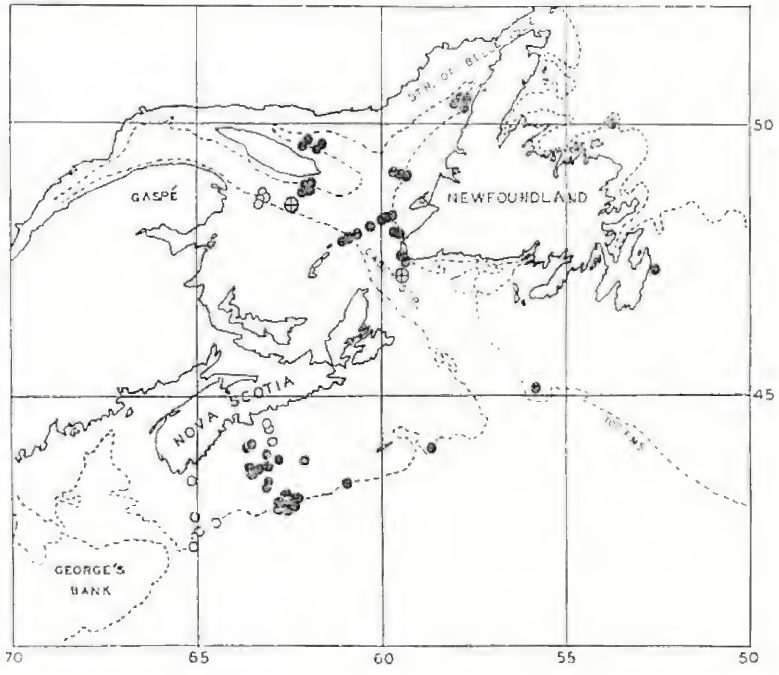

FIG. 1. Map showing positions at which fulmars were noted during two research trawler cruises in November 1959 and November, 1960. Positive records indicated by closed circles, open circles indicate positions where fishing operations failed to attract any fulmars. Two observations, shown by ringed crosses, have been added from R.N.B.W.S. records.

ADDITIONAL NOTES FROM RECENT R.N.B.W.S. RECORDS

Editorial Note:

The foregoing note on the fulmar's southwestern distribution limits in the West Atlantic has prompted a study of recent reports from this area originating from the R.N.B.W.S. Ocean Plot. There seem to be only two additional records for the area and season concerned, both of which lie on the Cabot Strait route to the ports in the Gulf of St. Lawrence. These two records have been incorporated in Fig. 1. It is well to bear in wind that the area concerned is a comparatively narrow strip lying at right angles to the trans Atlantic shipping routes and that the R.N.B.W.S. reports come from observers on passenger ships which pass quickly through the area offering little to attract the fulmars. These remarks apply particularly to the Nova Scotian banks which are touched by the routes to Halifax and Boston but not by those to New York.

One new (1961) summer record, 17th June, 1961—49°42'N., 65°17'W.—Nine adult fulmars, has however been reported to the R.N.B.W.S. for this area and the only other records known to the writer to have been published since Fisher's (1952) treatise are of the flock seen by Drury and Drury (1959) off the Gaspé peninsula. Three were seen in June, 1957, off Lockeport, Nova Scotia, by D. M. Scott. (Can. Field Nat. Vol. 73: 15-20, 1959), and a further report has now been received by R.N.B.W.S., 13th May, 1961—40°13'N., 69°25'W. (Georges Bank)—Eight fulmars.

The above are not shown in Fig. 1.

Northwards and eastwards from the southwest edge of the Grand Bank fulmars are well known to occur regularly right across the Atlantic. On trans Atlantic passages the greatest numbers seen in the Western North Atlantic are usually where the routes pass over or comes close to Grank Bank and Flemish Cap fishing grounds. There are six separate recent observations from the southwestern Grand Bank for the winter months (December - March) in R.N.B.W.S. records which involve numbers up to twelve birds in one report. Trawlers fishing in this area at the same season report gatherings of several hundred fulmars.

Further north, fulmars have been sighted regularly on the route which runs into the Strait of Belle Isle particularly in the area where this route crosses the Labrador Current and the continental shelf. Records from this area are, of course, confined to those months in which ice conditions permit navigation through the straits.

NOTES ON THE FOOD OF THE GREATER SHEARWATER

By E. I. S. Rees, Fisheries Research Board of Canada,
Biological Station, St. John's, Newfoundland.

During the summer months the Greater Shearwater *(Procellaria gravis)* occurs in large numbers in the Newfoundland Grand Banks region. The birds congregate around fishing vessels in numbers which may at times reach several thousands. The Newfoundland fishermen frequently take these birds for food and formerly they also used them for bait. The birds are attracted to the boat by throwing out fish liver and are then caught on trailing hooks.

An examination has been made of the stomachs taken from thirty-eight Greater Shearwaters caught at the eastern edge of the Grand Bank at Lt. 45°00′N., Long. 49°00′W., on June 26, 1961, by crew members of the research trawler "A. T. Cameron." The material was collected and preserved by Mr. G. R. Williamson who also checked the identity of the birds used.

The stomach of a shearwater consists of a glandular proventriculus followed by a strongly muscular gizzard acting as a grinding organ. The proventriculus frequently contains recognisable food organisms but the gizzard contents are only the indigestible hard parts. Quantitative comparison of the contents of the proventriculus was made by the displacement volume method.

The birds had apparently obtained their food in two ways; by active capture of marine animals and by scavenging around fishing vessels (Table 1). Squid were the only food organisms which had the appearance of having been caught by the birds in the first instance; the remainder originated from fishing vessels. The squid had apparently been swallowed tail first and were all lying with head and arms towards the mouth. All those which were in identifiable condition belonged to the most common species in this region *(Illex illecebrosus)*. This species sometimes occurs in large shoals at the surface and would then be readily available to the birds without the necessity for deep diving.

That part of the food which had originated from fishing vessel operations consisted of fish liver and fish stomach contents. The shearwaters had apparently been able to ingest the stomach contents of the fish without swallowing any of the stomach wall or intestines. Capelin *(Mallotus villosus)* were identified amongst the partly digested fish remains probably having come from the stomachs of cod, while the euphausiids *(Thysanoessa inermis)* probably came from redfish.

There are two opposing factors to be considered in deciding the extent to which this small sample gives a true indication of shearwater diet; on the one hand the birds were actually scavenging when captured, but on the other the squid probably take longer to digest than the liver and stomach contents.

Cephalopod beaks formed the bulk of the hard grinding material found in the gizzards, being found in every bird examined and having originated from more than thirty separate squid in some cases. Most of the beaks were of the *(Illex)* type but some apparently belonged to other unidentified species. Murphy (Oceanic Birds of South America, Vol. II, 1936), commenting upon the large numbers of cephalopod beaks found in the stomachs of these birds, suggested that in part they might be obtained by feeding upon whale faeces. Other organic materials found

in the gizzards were eye lenses (14 birds—38%), fish vertebrae (3 birds —8%) and unidentified seed-like objects (4 birds—11%).

Mineral matter was found in twenty-two of the birds (60%). This consisted mainly of quartz grains or small stones with a high quartz content. Grains of pumice, which floated in water, were found in three birds (8%). All the stones were of igneous or volcanic origin and could have been picked up at the breeding colonies on the volcanic islands of the Tristan da Cunha group. Indeed, it is doubtful if these oceanic birds would have any opportunity to pick up grit except during visits to the breeding islands.

TABLE I. Analysis of stomach contents (proventriculus only) of 38 Greater Shearwaters taken on the Grand Bank, June 26, 1961.

Food type	*No. birds with type*	*% with type*	*% by vol.*
Squid	9	24	47
Fish liver	16	42	28
Fish remains	8	21	16
Euphausiids	6	16	9
Total from fish stomach contents ...	13	34	25
Total scavenged	24	63	53
Empty	6	16	—

BIRDWATCHING BY RADAR—FURTHER NOTES

By Lieutenant M. B. Casement, R.N.

Having spent the last five months at sea in H.M.S. Centaur I have been able to watch various radar displays with the specific object of looking for echoes of migrating birds. On numerous occasions I was able to pick out small echoes at short ranges but these showed no consistent direction and were probably gulls. I had visions of spectacular displays such as had been obtained on R.A.F. Warning Radars, films of which I had been shown at Oxford by Dr. Lack, and I kept a special lookout as I passed through the Straits of Gibraltar in April. However, I had no such luck, firstly because there were too many side echoes from the land which confused the picture but also because the sets I was using lacked the necessary power.

However, during the middle watch of 27th April when we were mid-way between Tripoli and Malta I saw a number of firm echoes which appeared at twelve to thirteen miles; these I tracked for about twenty minutes until they faded at about the same range. In the next two hours I plotted twenty-eight contacts each one making good a steady North Westerly course at between forty-five to fifty knots. Activity increased around 0330 when there were as many as eight contacts on the screen simultaneously and the movement was still strong when I left the bridge at 0400.

These contacts were clearly visible on all displays of the normal 10 c.m. Seaguard Radar set which is fitted throughout the Royal Navy and were plotted by the Radar Plot Ratings in the Ops Room. Apparently these echoes are well known in the branch as "Mediterranean Weirdies" and being too slow for aircraft and too fast for ships are normally disregarded.

It was a clear starlight night with a three-quarter full moon until 0315. At 500 feet the wind was from 320° 15 knots but increased with height and at 10,000 feet was from 290° 50 knots. It would have been most useful to have obtained a radar height of these contacts but on this occasion I was unprepared and could not do so. Knowing the wind at this height I could then have determined their actual course and speed through the air. The following night weather conditions were similar and I watched with renewed interest but I only saw two such contacts and I could not draw any conclusions from them. For operational reasons I was unable to continue this research for several weeks after this and then my observations drew a complete blank. Not only was Centaur in a different area of the Mediterranean but presumably the main Northward rush was now over.

I afterwards discovered that throughout this particular period there was a strong movement of Turtle Doves through Malta and I am fairly certain that these echoes were small flocks of these birds. Turtle Doves pass through Malta in vast numbers in both spring and autumn and provide the main sport on the island. Every man with a gun is ready for them and many more are netted and caged. These are later released from traps to provide out-of-season sport.

My experience has shown that even the standard radar set can provide useful information though possibly only of the larger birds. With the more powerful high definition radar now coming into service we can expect to increase the scope much further.

There are many occasions especially at night when the Radar Plot

Watchkeepers have little enough to do and are only too keen to assist in plotting these "weirdies" not only does it give them useful plotting practice but they show real enthusiasm when asked to take part in a research which may have scientific value.

It is most important to record accurate weather information, particularly of wind at various heights. If there is no Met Officer on board or no aircraft carrier in company, the information is always filed in the main Met. Stations (such as Hal Far in the Mediterranean) and could probably be obtained on request.

A lot more work needs to be done in this field and I hope others will join me and look at their P.P.I's with renewed interest and curiosity in future.

A MONTHLY DISTRIBUTION TABLE OF SEA BIRDS, LIKELY TO BE ENCOUNTERED IN THE RIVER HOOGHLI, NORTH-EAST INDIA, ON PASSAGE TO OR FROM CALCUTTA.

(Compiled as a result of six years' observations by Third Officer M. E. Jones, M.N.)

Species	*Jan.*	*Feb.*	*Mar.*	*Apr*	*May*	*June*	*July*	*Aug.*	*Sept.*	*Oct.*	*Nov.*	*Dec.*
INDIAN BLACK-HEADED GULL *(Larus brunnicephalus)* ...	†	†	†	†	—	—	—	—	†	†	†	†
NORTHERN BLACK-HEADED GULL *(Larus ridibundus)*	†	†	†	—	—	—	—	—	†	†	†	†
GREAT BLACK-HEADED GULL *(Larus ichthyaetus)*	o	o	o	o	—	—	—	—	o	o	o	o
YELLOW-LEGGED GULL *(Larus cachinnans)*	o	o	o	—	—	—	—	—	—	o	o	o
INDIAN RIVER TERN *(Sterna aurantia)*	†	†	—	—	—	†	†	†	†	†	†	†
BLACK-BELLIED TERN *(Sterna melanogastra)*	o	o	—	—	—	—	o	o	o	o	o	o
GULL-BILLED TERN *(Gelochelindon nilotica)* ...	o	o	o	—	—	—	—	—	o	o	o	o
RED-BILLED TROPIC BIRD *(Phaethon aethereus)* (1) ...	o	—	—	—	—	—	—	—	—	—	—	—
WILSON'S STORM PETRELS (2) *(Oceanites oceanicus)*	—	—	—	—	—	—	o	—	—	—	—	—

KEY : † Abundant; o Few ; — Absent.

(1) A single bird seen at the entrance to the R. Hooghli 1959

(2) Twenty-five to thirty birds seen at the entrance to the R. Hooghli 1958.

SANDPIPER

By P. A. Rayfield

Trudging homeward along the sea wall in the failing light at the end of a rewarding September day on the Hampshire Marshes a small wader caught my attention as it ran at the tide-edge. It stopped, as I neared, to stand jerking its tail and bobbing its head and then suddenly it took wing skimming low over the shimmering water towards the dark saltings, its wing-beats strong and decided, alternating with a sharp downward stroke. And, as if the pre-flight, wagtail-like, actions and the typical flight were not enough to stamp the fast receding sprite as a Common Sandpiper a cheery "twee-wee-wee" was thrown back at me: a truly delightful au revoir.

This shrill contact call, so often heard as a nocturnal farewell from passing migrants, has been described by many yet by none so aptly as Miss E. L. Turner. Her "peals of elfin laughter" piercing the gloom of mist-enshrouded estuary or mountain loch, or echoing down to fairy-land-like tropical gardens from a bright starlit sky has thrilled me and many another aware of the world about him. Miss Turner, I am sure, would have been enchanted in some of the tropical settings winged over by these tiny globe-spanners, broadcasting their call-signs so brightly and clearly.

This most graceful of all the sandpipers has a very wide breeding distribution in Europe and Asia and spreads over enormous areas in its migrations which carry it to Australasia. At all seasons it is a coastwise and inland species and so it must make the acquaintance of many thousands of other bird species, be the contacts pleasant or unpleasant, from penguins to weaver-birds. What a chance for a life-list! Certainly around paddyfields and similar tropical habitats frequented by this and many other sandpipers the species are legion and varied including many rails, kingfishers, egrets and herons to flycatchers and tailor-birds. In such places birds of prey are bound to lurk and I shall never forget the day, in a Ceylon paddyfield, when Common and Wood Sandpipers flew up in panic as a magnificent male Pied Harrier quartered the fields, passing me at only ten feet. This little-known harrier very rarely visits Ceylon.

Most bird-books list the "Summer Snipe" as a summer visitor to the British Isles but quite a few winter in the south-west and the writer has known one spartan to spend the whole winter, through many frosty days, in a small creek off the River Medway. Furthermore, it is not only a winter visitor to Africa; it has bred in Kenya.

Since the Handbook of British Birds was published twenty years ago a trickle of information on migration in this abundant sandpiper has been gathered by ringing and observation. On breeding, however, there has been very little advance and we are still in the dark about the part played by the sexes during incubation and fledging, quite apart from the tricky problem of the fledging period. This ignorance is not surprising in a species where the sexes look alike when we know so little about other birds whose habits are much more helpful. Such difficulties exist to be overcome and the writer has been fortunate in lifting the veil a little to reveal at the least a few clues.

By individually marking and observing a small group of breeding Common Sandpipers the behaviour pattern would appear to be: commencing some time during incubation, the hen's brooding urge wains

whilst the cock's grows until he dominates at the hatching and plays the major role in caring for the young; the hen, indeed, usually deserts the family before they are independent. On the fledgling period, my observations prove it to be less than half the five weeks given as estimated in the "Handbook."

Conducting an intimate study into the family life of such a lively and attractive little creature develops an enduring bond which, maybe, explains why a bird calling back over the water will stop some of us in our tracks and set us reminiscing.

NEW MEMBERS 1960/61

Honorary Member:

LEKTOR HANS HVASS ...	Grondalsvej 53, Copenhagen F., Denmark. R.N.B.W.S. Local Representative.

Corporate Member:

THE SCHOOL OF NAVIGATION, WARSASH	(University of Southampton).

Members:

CHESHIRE, N. G.	Apprentice, M.N. M.V. British Fulmar, B.P. Tanker Co. Ltd.
FIELDHOUSE, D. F.	Lieut-Commander, R.N. H.M.S. Crossbow.
GRETTON, J. H.	Commander, R.N., Admiralty.
HANCOCK, R. T. G.	Lieut-Commander, R.N. H.M.S. Crossbow.
HOYER-MILLAR, E. L. E. ...	Dame of the British Empire. Late Director, W.R.N.S.
MACINNES, L. J.	Chief Engineer Officer, M.N., Shell Tanker Co. Ltd.
MALONE, A. E.	Surgeon Rear-Admiral.
MEARES, J. A.	Commander, R.N.
MUNDAY, J. S.	Captain, M.N. s.s. Conrado Shell Petroleum Co. Ltd.
NEWTON, H. R.	Commander, R.N.R. London Flotilla, R.N.V.S.R.
PEACHEY, W. G.	Radio Operator 1. H.M.S. Mercury.
RIDGWAY, S. G.	Corporal, R.M. J.A.S.W.C., Poole.
ROCHESTER, S.	Captain, M.N. Master Mariner. Marine Superintendent Stephenson Clarke Ltd.
SKALES, L. J.	Captain, M.N. M.V. Port Pirie, Port Line Ltd.
STAM, D.	Captain, Netherlands M.N. M.S. Joseph Frering. Wm. Muller & Co., Amsterdam.
STACKPOLE, R.	Lieut. Commander, U.S.N.R. (retd), Box 296, Wayland, Massachusetts, U.S.A.
SWINLEY, C. W. C.	Lieutenant, R.N. H.M.S. Royal Arthur.
PARK, H. L.	Captain, M.N. M.V. Wheatfield, Hunting and Sons Ltd.
GUINA, T. N.	Radio Officer, M.N. s.s. British Signal, B.P. Tanker Co. Ltd.

COMMON SANDPIPER AND CHICK A FEW HOURS AFTER HATCHING—Photo by P. A. Rayfield.

NOTES ON SKINNING AND PRESERVING BIRDS

When a bird dies or is found dead onboard the best long-term method of preserving the specimen is to skin it completely. This is all the more applicable to larger birds where indeed the process of skinning is not difficult provided no attempt is made to hurry the operation or use force at any time. Do not delay; the sooner the bird is skinned the easier it is.

SKINNING

1. Plug throat with cotton wool.
2. Place bird belly upwards on a sheet of paper, part the feathers along centre of belly between finger and thumb and make a longitudinal incision with a sharp knife or razor blade. Only cut the skin, not the abdominal wall.
3. Separate skin from body with the handle of a spoon or with fingers. Dust exposed area with absorbent powder or fine sawdust.
4. Free legs first and cut thighs with scissors. Remove flesh from leg bones.
5. Free skin round back to base of tail and cut through tail stump leaving a good stump otherwise the tail feathers will fall out.
6. Now work upwards towards head, cutting through wing joints as for legs.
7. Before starting to work skin over head and skull, attach a piece of stout thread to base of beak. (This will help in process of turning skin back again over skull).
8. Now work skin carefully over skull. When eyes are reached cut skin carefully around eye sockets thus freeing skin.
9. Remove eyes and plug sockets with cotton wool.
10. Now part whole body from skull by making a V-shaped cut at base of skull. Clean out brains and soft tissue with forceps.
11. Inspect skin overall and scrape off all bits of fat or flesh, especially around wings, tail and legs.
12. Brush all over with arsenical soap or boracic powder.
13. Make up leg muscles with cotton wool twisted round exposed bones.
14. Turn skin back to usual position (be very careful with skull), and shake out.
15. Take a piece of wire a little longer than body and build cotton wool around it to a shape roughly similar to original body. Insert one end of wire in base of skull and the other end at base of tail. Do not stretch skin. Pieces of cotton wool may also be worked under throat or elsewhere to fill out pockets.
16. Leave specimen in an airy place to dry off thoroughly
17. For transport, place specimen in a polythene bag and pack around firmly with paper or cotton wool. Add plenty of napthalene as a preservative and place in a cardboard box.

TEMPORARY PRESERVATION

1. Open beak and pack with salt, pushing well down into crop.
2. Burst eyes with a pin and remove from sockets. Pack salt into cavity.
3. Make incision over abdomen (not breast bone). Remove viscera with forceps up into thorax and then remove whole contents from thorax and abdomen.

4. Pack abdominal cavity and thorax with as much salt as possible.
5. If at sea place specimen in refrigerator and despatch to destination as soon as possible.

SEX

To determine sex the gonads must be inspected. These lie close to the backbone about midway up abdominal cavity. Male gonads are paired, female gonads are a single mass of granular substance. In immature birds the difference may not be obvious.

LABELLING

It is most important to label specimens clearly. Show your own name, date and place of capture, sex if possible and (very important) colour of soft parts, i.e. Iris, upper and lower mandible, legs and feet. These details should be noted as soon as possible after discovering specimen, as colour of soft parts fades after a bird has died.

ROYAL NAVAL BIRDWATCHING SOCIETY

Statement of Accounts for Year ending 30th November, 1961

1959 £ s. d.	£ s. d.	RECEIPTS	£ s. d.	£ s. d.
144 8 0		Balance at 1st December, 1959: Cash at Bank		160 6 3
		Subscriptions:		
		Current year—under covenant	23 17 0	
	62 6 6	Other	45 16 6	
	2 0 0	Arrears	0 0 0	
	3 14 6	In advance	3 7 0	
68 1 0				73 0 6
	2 14 0	Donations—Under covenant	3 4 0	
	9 16 6	Other	6 4 0	
12 10 6				9 8 0
		Income Tax received on 52 members covenanted subscriptions and		
3 2 8		donations up to 5th April, 1960		17 2 6
		Sales of Members' Ties		82 11 0
		Other receipts:		
	31 5 6	Sales of *Sea Swallow*	49 6 6	
	1 19 0	Sales of Sea Passage Lists	4 1 0	
	0 0 0	Advertisement in *Sea Swallow*	10 0 0	
	10 10 0	Elder Dempster Lines article in *Sea*	0 0 0	
43 14 6				63 7 6
£271 16 8				£405 15 9

£ s. d.	£ s. d.	EXPENDITURE	£ s. d.	£ s. d.
15 10 10		Postage and Stationery—		19 11
	68 1 0	Printing *Sea Swallow*, 1959	85 10 0	
	1 3 9	Sea Passage Lists	0 0 0	
	7 2 6	Sea and Land Bird report sheets	9 6 0	
	7 10 0	Bulletins Nos. 44 - 46	7 10 0	
	1 18 6	Deed of covenant forms	0 0 0	
	3 10 0	Letterhead sheets and block	0 0 0	
	9 6	Information leaflets	9 6	
	0 0 0	Minutes of Annual Meeting, 1959	1 4 0	
	0 0 0	Society's Constitution and Rules	13 6	
89 15 3				104 13 0
		Expenses of Annual General Meeting, 1959		1 3 6
1 8 10		Subscriptions:		
		British Trust for Ornithology	2 0 0	
		Council for Nature	1 0 0	
3 0 0				3 0 0
		Purchase of Members' Ties		83 14 6
		Captain Tuck—Reimbursement of loss on sale of Christmas Cards ...		7 12 4
1 15 6		Bank Charges and Cheque Books		4 0
160 6 3		Balance 30th November, 1960—Cash at Bank		185 17 5
£271 16 8				£405 15 9

R. PEGLER, Chartered Accountant.
G. S. TUCK, Chairman, R.N.B.W.S.